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MARK ALLEN GROUP

TEACHER RETENTION: A LITERATURE REVIEW

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ABOUT THE AUTHOR

Matt Bromley is an education journalist and author with twenty years' experience in teaching and leadership. He works as a consultant, speaker, and trainer, and is a school governor.

Matt writes for various newspapers and magazines including TES, SecEd, Headteacher Update, SEN Leader, School Business Manager Magazine, and School Inspection+Improvement Magazine. He is the author of numerous books for teachers including 'How to Become a School Leader', 'The Art of Public Speaking', 'Making Key Stage 3 Count', 'The New Teacher Survival Kit', 'How to Lead' and 'How to Learn'.

Matt regularly speaks at national and international conferences and events, and provides education advice to charities, government agencies, training providers, colleges and multi-academy trusts. He works as a consultant and trainer with several companies and provides a wide selection of direct-to-market consultancy and training services through his own company, Bromley Education, which he founded in 2012.

Between 2013 and 2016 Matt was the Group Director of Teaching and Learning for a large further education college and multi-academy trust and was responsible for improving the quality of teaching of c30,000 students. During his tenure the Ofsted judgment for further education provision improved from 'requires improvement' to 'good' with outstanding features, teacher training provision was graded 'outstanding', higher education provision was 'commended' by the QAA, and exam results placed the college within the top 20th percentile in the country.

Previous to this, Matt was acting Headteacher of the highest performing comprehensive school in its authority and one of the top five most improved schools in England (whose Ofsted judgment improved from 'satisfactory' to 'good' during his service). He was Deputy Headteacher of a small rural school (with responsibility for the curriculum and timetable, self-evaluation and school improvement, and health and safety and the site), and Assistant Headteacher of a large inner-city school (with responsibility for, amongst other areas, teaching and learning. He is an experienced teacher of English Language and Literature at key stages 3, 4 and 5 and has a strong record of exam success at GCSE and A Level both as a classroom teacher and as a middle and senior leader.

Matt has worked at senior levels in the public and private sectors and, prior to teaching, was a senior manager in the telecoms industry. He began his working life in newspaper journalism. He has an Honours degree in English Language and Literature, a Post-Graduate Certificate in Education and the National Professional Qualification for Headship, as well as several professional qualifications.

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1. INTRODUCTION

There is a teacher recruitment and retention crisis in England.

Firstly, pupil numbers are growing. This is due to a demographic bulge which is travelling through the education system, causing a large increase in pupil numbers at secondary level.

The secondary school population – not counting year 12 and 13 pupils – is projected to rise from 2.72 million in 2017 to 3.03 million by 2021, a rise of 11.5 per cent over four years. By 2025 there is projected to be 3.3 million 11 to 15-year-olds in English schools, which is an increase of half a million compared to 2015. If we are to ensure these children are properly educated, we will need an extra 26,500 teachers in the classroom.

Secondly, not enough new secondary school trainee teachers are coming into the sector. Initial teacher training (ITT) figures for 2016/17 show a decrease in the overall number of recruits compared with 2015/16, with only 93 per cent of places being filled. The overall contribution to the secondary target was 89 per cent, meaning nearly 2,000 places went unfilled.

In reality the situation is worse than these figures suggest because, since 2015/16, ITT figures have included applicants for Teach First who were previously excluded from the statistics. This therefore boosted the overall figure for 2016/17 by more than 1,000 applicants. However, despite the inclusion of Teach First applicants in the ITT statistics, the overall Teacher Supply Model (TSM) target was still not met, just as it hadn't been met for the previous four years.

In 2016/17, the only subjects where the TSM recruitment target was met were biology, geography, history and PE. All other secondary subjects were under-recruited, and some by a significant margin. For instance, maths only recruited 84 per cent of the required number of trainees, physics 81 per cent, and computing just 68 per cent.

Thirdly, not only are we failing to recruit enough new teachers, we are also losing too many experienced ones. Teachers are leaving the profession in record numbers. One in 10 teachers left the profession in 2016. Of these, an increasing proportion left the profession for other sectors rather than retiring, suggesting their working conditions rather than their age were driving them out.

The consequence of falling recruitment and retention rates is that the number of unfilled teaching post vacancies is at a record high in secondary, with 23 per cent of schools reporting an unfilled vacancy in 2017, up 15.9 per cent on 2010.

The retention problem is most pronounced in multi-academy trusts which have a higher than average rate of teachers leaving the profession, compared with single-school academies and maintained schools.

The leaving rate is highest among teachers who teach non-EBacc subjects, which might suggest that they have been incentivised to leave the profession because their subjects are no longer being taught as the school curriculum narrows, or that they have become more frustrated or disaffected at their subject taking lower priority.

A survey by the then National Union of Teachers (NUT) in March 2016 found that nearly three quarters (73 per cent) of school leaders were experiencing difficulties in recruiting teachers, with 61 per cent saying that the situation had got worse (42 per cent) or much worse (19 per cent) over the last year.

The greatest problem areas, according to the survey, were in maths (36 per cent of school leaders were struggling to recruit in this area), science (34 per cent) and English (23 per cent).

The crisis in teacher recruitment and retention means that while schools are struggling to fill vacancies and retain experienced staff, large numbers of pupils are being taught by unqualified teachers – or at least teachers who do not have a relevant qualification in the subject they are being asked to teach.

In 2016, for example, the NUT found that only 63 per cent of physics and 75 per cent of chemistry teachers held a relevant post A level qualification in the subject they taught. For maths and English, these figures were 78 and 81 per cent respectively.

High levels of attrition among qualified teachers is not only costly in financial terms; it also has an impact on the quality of education that schools can provide. In November 2016, for example, there were 500 fewer qualified teachers in service than in the previous year. Conversely, there were 1,400 more teachers in service without qualified teacher status than there had been the year before.

2. PURPOSE OF THIS REVIEW

The purpose of this report is to review the landscape of academic literature on the topic of teacher retention in order to:

1. Assess the scale of the problem in the UK and abroad
2. Understand the most common causes of teacher attrition
3. Identify the common predictors of high teacher turnover
4. Explore some solutions to the problem of high teacher turnover
5. Survey the products and services available to schools to help reduce attrition
6. Offer suggestions about products and services that might help in the future

3. METHODOLOGY

The papers reviewed in this report were selected on the basis of their relevancy in helping to better understand why teachers leave the profession and what can be done to stem the flow.

This report sought to review a variety of papers from differing sources including academic papers published by UK universities, think tanks and policy institutes, professional associations and research organisations, as well as journalistic testimonies from teachers and leaders written in education magazines, newspapers and weblogs.

For the purposes of international comparison, a number of papers from overseas were also reviewed and these were selected on the basis outlined above, albeit with a greater reliance on academic sources from trusted universities.

An initial search of ERIC (the *Education Resources Information Centre*, an online library of education research and information, sponsored by the Institute of Education Sciences of the US Department of Education) using the search term 'teacher retention' garnered 6,248 results of which 52 had been published in 2018, 283 in the last year and 847 in the last five years. A majority 1,144 of the 6,248 results related to higher education whilst 697 related to primary/secondary combined, 344 to secondary and 342 to primary. When the results were filtered for UK origin, the number fell to just 57 of which only one had been published in 2018 and only six in the last five years.

A search of Sage Publishing's online repository of journal articles using the same parameters garnered 97,638 results, of which 4,462 had been published within the last year and 15,866 within the last five years. When the search parameters were narrowed to include only those papers with the terms 'teacher retention' in their title, the result dropped to just 19.

A search of Taylor and Francis Online (another online repository of journal articles) using the term 'teacher retention' garnered 192,149 results. When filtered to include only those papers with the search terms in their title, the result dropped to 156.

Although the original search for literature garnered 100,000s papers, once each had been filtered for relevancy and originality, only 43 remained worthy of analysis. Once these 43 papers had been read, only 20 remained worthy of inclusion in this report. Undoubtedly, other academic papers could have been included in this report but have been omitted in the interests of avoiding needless repetition.

In addition to a review of the literature, this report includes the results of a survey of teachers' views.

4. SCALE OF THE PROBLEM

According to a report by the National Audit Office published in 2017 called 'Retaining and developing the teaching workforce', schools spend around £21 billion a year on their teaching workforce. Overall, the number of teachers in state-funded schools increased by 15,500 (3.5%) between 2010 and 2016. However, the number of secondary school teachers fell by 10,800 (4.9%) over the same period and secondary schools face significant challenges to keep pace with rising pupil numbers.

The NAO report found that more teachers are now leaving before retirement than was the case five years ago, and as such schools are finding it difficult to fill posts with the quality of teachers they need. In 2016, 34,910 teachers (8.1% of the qualified workforce) left for reasons other than retirement, the NAO found.

According to a NAO survey, 67% of school leaders reported that workload is a barrier to teacher retention. A Department for Education's survey, meanwhile, found classroom teachers and middle leaders worked, on average, 54.4 hours during the reference week in March 2016, including the weekend.

According to the NAO survey of school leaders, schools filled only half of their vacancies with teachers with the experience and expertise required, and in around a tenth of cases, schools did not fill the vacancy at all. There are also regional variations in the supply of teachers, with the North East having the lowest proportion of schools reporting at least one vacancy (16.4% of secondary schools), while Outer London (30.4%) and the South East (26.4%) had the highest.

However, the 2017 NAO report also found that a greater number of qualified teachers were returning to state-funded schools. The NAO therefore concluded that the Department for Education and schools have scope to attract back even more teachers who have left and benefit from the investment made in their training. In 2016, say the NAO, 14,200 teachers returned to work in state-funded schools, an increase of 1,110 on 2011.

The Department for Education believes that the quality of teaching is the most important factor that determines pupil outcomes. In 2016 90% of primary pupils and 82% of secondary pupils were in schools where Ofsted rated the quality of teaching, learning and assessment as good or outstanding. However, the number of pupils being taught in schools where Ofsted rated teaching, learning and assessment as requires improvement or inadequate varied greatly across the country. This ranged from 9% in London to 26% in Yorkshire and the Humber. The proportion of pupils in secondary schools rated as inadequate in this respect increased with deprivation.

While the NAO had previously reported that the Department for Education spent £555 million on training and supporting new teachers in 2013/14, they found that it spent only £35.7 million in 2016-17 on programmes for teacher development and retention, of which £91,000 was aimed at improving teacher retention.

Schools report that time and cost are barriers to improving teacher quality. Although data is not systematically collected on how much continuing professional development teachers undertake, a survey cited by the NAO found that teachers in England spent four days a year on professional development in 2013, compared with an average of 10.5 days across 36 other countries. The need for schools to make significant workplace efficiency savings is likely to make it more difficult for them to support teachers' development, the NAO suggests.

5. THE NATURE OF THE PROBLEM

According to a report by CooperGibson Research on behalf of the Department for Education entitled 'Factors affecting teacher retention: qualitative investigation' published in March 2018, workload remains the most important factor influencing teachers' decisions to leave the profession and most suggested solutions to addressing retention were linked in some way to workload.

The report says there is evidence that early career teachers made the decision to leave the profession quickly, typically within three months of when they first started to consider leaving. By contrast, more experienced teachers were more likely to consider their decision over one to two years.

Teachers' decisions to leave the profession were generally driven by an accumulation of a range of different factors and over a sustained period of time. However, CooperGibson found that, for some teachers, there had been a specific 'trigger' point, for example around teaching performance resulting in involvement from the senior leadership team, feeling undervalued after an issue had been highlighted or a specific behavioural incident involving pupils and parents/carers.

When asked by researchers, teachers found it challenging to provide solutions to retention issues or suggestions for how issues they had faced could have been resolved. Nevertheless, they did provide some ideas for consideration. These related to:

Improving in-school support for teachers – greater levels of support and understanding from SLT was needed, for example, in terms of the management of pupil behaviour, and the ability to have open and honest conversations. This would help support teachers' relationships with their SLT and reduce feelings of pressure in terms of scrutiny, accountability and workload. Considerations would be how the message to senior leaders and teachers can be strengthened to dispel the myths around inspection and the commitment to reduce workload. This would mean giving greater confidence and support to senior leaders to address workload and well-being.

Greater focus on progression opportunities - there was some evidence that the availability of wider progression opportunities may help support retention. This could be supported by communicating examples of how multi-academy trusts have developed alternative subject progression pathways, exploring transferability to other schools and supporting schools to consider job role swaps.

Reducing workload at a school level - for most teachers a significant reduction in their workload would have led them to reconsider their decision to leave. As well as supporting schools to implement recommendations of the Workload Review Groups, sharing and making accessible good practice examples of success in schools would be beneficial. Supporting teachers with confidence to plan and mark efficiently and effectively and supporting senior leaders to implement the necessary changes, would also be important contributions.

Improved working conditions – flexible working and part-time contracts were generally viewed positively. Some viewed these as a way to secure a better work-life balance. Increasing opportunities for flexible working may have a role in helping to retain teachers in the profession, but offering such opportunities without addressing fundamental issues around teacher workload is unlikely to have a significant impact. Although pay was not the driver for many teachers, it was stated by most that the pay levels were not reflective of teachers' expertise, experience and dedication. Some suggestions included grants/funding for teacher training and better pay/incentives for staying in teaching.

Professional recognition and greater autonomy – although teachers were unclear on how this could be achieved for the profession as a whole, it was evident that teachers feeling more respected and valued would have

gone some way to retaining them in the sector. Their suggestions related to how senior leaders trusted their work and gave them freedom and autonomy to mark and plan.

In addition, teachers felt strongly that further **subject specialist support** for early career teachers was needed, particularly around mentoring, providing networks and resources and using a database to track teachers and offer additional support if they decide to leave. Concerns were around not duplicating what was already available, having the time to use elements of the support package, confidentiality and independence of mentors, and the availability of mentors at a suitable time prior to making a decision to leave. Some also suggested the support package would be useful for those slightly later in their careers.

Teachers wanted their schools to commit to implement the recommendations from the three Workload Review Group reports, with evidence suggesting this assurance would be more likely to have an impact on retention/returning to the profession. There were concerns raised as to whether the recommendations would be implemented, and as such there could be a need to review progress across schools and support schools in communicating their workload reduction successes. Schools may also need support in overcoming some of the practical challenges of reducing workload.

Early career teachers viewed the prompt around removal of pastoral responsibilities positively; however, many felt that it was an integral part of the role. A 'sympathetic timetable' (focusing on fewer year groups as an early career teacher) was viewed positively by around one-third (n=20) of secondary teachers. Considerations included how flexibility could be offered to early career teachers who want broader teaching experience, how pastoral responsibilities could be gently phased in and how these could be managed practically in school.

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Another useful source of information to aid our understanding of the reasons for teacher turnover is a report of the House of Commons Education Committee entitled 'Recruitment and retention of teachers' published in February 2017. In that report, the Committee said that over the past six years schools have been faced with a series of changes to curriculum, assessment and the accountability system, as well as uncertainty about changes to school structures. This, they suggest, could have increased teacher workload and piled on the pressure as schools try to implement the changes.

A survey carried out in 2015 showed 76% of teachers cited **high workload** as the most common reason for considering leaving the profession. A survey carried out by the Association for Teachers and Lecturers showed a similar statistic, "76% of the NQT respondents say they have considered leaving teaching because their workload is too high".

The Committee report said that workload is not the only reason teachers appear to be leaving the profession. Jack Worth of the NFER told the Committee that "overall **job satisfaction** comes out as the biggest driver [for intention to leave], and also things related to whether they feel **supported and valued by management**".

As reported in the NFER report, 'Engaging teachers: NFER Analysis of Teacher Retention', "it is too simplistic to focus solely on workload as the reason […] teachers decide to leave". The NFER analysis showed that inspection and policy change were key drivers for increased workload, which then led to poor health and feeling undervalued.

The Committee report says that government intervention currently focuses almost entirely on improving recruitment of teachers. The government struggles to recruit enough teachers to ITT each year, making the retention of teachers ever more important. Introducing initiatives to help improve teachers' job satisfaction, the Committee argues, may well be a much more cost-effective way of improving teacher supply in the long term.

The Committee argues that the government should also focus more resource on evidence-based policies to improve the retention of high-quality teachers. In particular, the government should collect more granular data on teacher retention rates and this should include the reasons driving teachers to leave including secondary school subject, region and route into teaching to inform where intervention and investment should be directed.

Furthermore, the Committee argues that school leaders should carry out systematic exit interviews and use this information to better understand staff turnover, and whether there are any interventions that may help retain high-quality staff.

6. INTERNATIONAL COMPARISON

Teacher turnover is not uniquely a UK problem. The literature suggests most countries suffer a deficit of teachers. The US offers a particularly rich seam of literature on the topic. Indeed, as one might expect from a country of nearly 327 million people and approximately 100,000 state schools, most of the available literature on the subject of teacher retention internationally originates in America.

One of the most heavily cited papers is a University of Pennsylvania publication entitled 'Teacher Turnover and Teacher Shortages: An Organizational Analysis' written by Richard Ingersoll and published in 2001. Given its importance and ubiquity, it is therefore worth considering the contents of this paper in their entirety before proceeding...

Since the early 1980s, educational theory has predicted that shortfalls of teachers resulting primarily from two converging demographic trends - increasing student enrolments and increasing teacher retirements - will lead to problems staffing schools with qualified teachers and, in turn, lower educational performance (e.g., National Commission on Excellence in Education, 1983; National Commission on Teaching, 1997).

However, Ingersoll investigates the possibility that there are factors other than an increase in retirements and student numbers (such as those tied to the organisational characteristics and conditions of schools) that are driving teacher turnover and, in turn, school staffing problems.

Concern over shortages has given impetus to empirical analysis, much of it focused on teacher turnover (e.g., Grissmer & Kirby, 1987, 1992, 1997; Heyns, 1988; Murnane, 1981, 1987; Murnane, Singer, & Willett, 1988). Ingersoll's analysis attempted to build on these bodies of theory and research by examining teacher turnover and, in turn, school staffing problems from an organisational perspective. Ingersoll's data shows that teacher turnover is a significant phenomenon and a dominant factor driving demand for new teachers and, in turn, creating school staffing problems. Although it is true that student enrolments are increasing, the demand for new teachers is primarily due to teachers moving from or leaving their jobs at relatively high rates.

And, although it is true that teacher retirements are increasing, the overall amount of turnover related to retirement is relatively minor when compared to that associated with other factors, such as teacher job dissatisfaction and teachers seeking to pursue better jobs or other careers.

His findings suggest that teacher supply and demand imbalances and attendant school staffing problems are neither synonymous with, nor primarily caused by, teacher shortages in the technical sense of a supply-side deficit of qualified candidates. Moreover, his analysis suggests that increases in student enrolments and increases in teacher retirement are not the primary factors at the root of staffing difficulties, as current educational theory holds. Rather than insufficient supply, the data suggests that school staffing problems are primarily due to excessive demand resulting from a 'revolving door' - where large numbers of teachers depart their jobs for reasons other than retirement.

The results of Ingersoll's analysis have important implications for educational policy, he argues. Supply and demand theory holds that where the quantity of teachers demanded is greater than the quantity of teachers supplied, there are two basic policy remedies: increase the quantity supplied or decrease the quantity demanded. Teacher recruitment, an example of the former approach, has been and continues to be the dominant approach in addressing school staffing inadequacies in the US (Hirsch et al., 2001; Feistritzer, 1997; Kopp, 1992). Some schools do indeed suffer from inadequate numbers of qualified teachers supplied. A case in point, Ingersoll says, is California where increased hiring due to initiatives to reduce elementary school class sizes has created a temporary imbalance between supply and demand. However, his analysis suggests that recruitment programmes alone will not solve these or other school staffing problems if they do not also address the problem of teacher retention.

Ingersolls says that the solution to staffing problems does not primarily lie in increasing an insufficient supply, but rather in decreasing excess demand. In short, Ingersoll's analysis suggests that recruiting more teachers will not solve staffing inadequacies if large numbers of such teachers then leave. Current policies will not only fail to solve school staffing problems, but they will also divert attention from the primary underlying problem - the manner in which teachers and schools are managed.

From the perspective of this analysis, schools are not simply victims of large-scale, inexorable demographic trends, and there is a significant role for the management of schools in both the genesis and solution of school staffing problems. Rather than increase the quantity of teacher supply, an alternative solution to school staffing problems, implied by Ingersoll's analysis, is to **decrease the demand for new teachers by decreasing turnover**.

The data Ingersoll analysed suggests that improvements in organisational conditions, such as **increased support from the school administration, reduction of student discipline problems, and enhanced faculty input into school decision-making and increased salaries**, would all contribute to lower rates of turnover, thus diminish school staffing problems, and ultimately aid the performance of schools. Although the data suggests that these changes would be beneficial, it does not imply they will be easily achieved. Indeed, it may be that because such reforms are considered too costly in one manner or another for important constituencies, that they have often been overlooked in research and reform concerned with school staffing problems.

The results of this analysis also have implications for a second area of education theory and policy - school community and effectiveness. Educational sociologists, in particular, have long held that the presence of **a sense of community and cohesion** among families, teachers, and students is important for the success of schools (e.g., Durkheim, 1961; Waller, 1932; Parsons, 1959; Coleman & Hoffer, 1987; Grant, 1988; Rosenholtz, 1989). In general, large public schools in the US, especially those in urban, high-poverty areas, are often cited as less likely to exhibit a sense of community (e.g., Bryk, Lee, & Smith, 1990). In contrast, many have argued that small schools are more likely to have a communal climate, providing support for a 'small is beautiful' viewpoint perennially popular among educational reformers (for reviews of the debate on school size, see Bryk, Lee, & Smith, 1990; Guthrie, 1979; Walberg & Walberg, 1994). Moreover, some researchers have tied the effectiveness of private (UK: public) schools, especially the religiously oriented, to a coherent and unified mission and sense of community (e.g., Bryk, Lee, & Holland, 1993; Coleman & Hoffer, 1987).

Underlying Ingersoll's analysis is the premise, drawn from the sociology of organisations, occupations, and work, that high levels of employee turnover are tied to how well organisations function. From this perspective, high rates of teacher turnover are of concern not only because they may be an indication of underlying problems in how well schools function, but also because they can be disruptive, in and of themselves, for the quality of school community and performance. Although Ingersoll's analysis does not explicitly examine the relationships among teacher turnover, school community, and school effectiveness, if one accepts the above premise, he argues, then his results raise serious questions for the educational literature on school community and, especially, concerning which kinds of schools are more likely to have a positive sense of community and what effect teacher attachment to schools has on school community and performance.

The data Ingersoll analysed shows that neither larger schools, US public (UK: state) schools in large school districts, urban public (state) schools, nor high-poverty public (state) schools have the highest rates of teacher turnover. In contrast, small US private (UK: public or independent) schools stand out for their relatively high rates of turnover. Moreover, among private schools there are large variations in turnover. In contrast to the relatively low turnover rates in large private schools, small private schools lose, on average, almost one-fourth of their staff each year, most of whom are full-time employees. In such cases, ostensibly, an entire staff could change within a school in only a short number of years.

Small private schools employ about 7.5% of the K–12 (UK: compulsory schooling, a shortening of kindergarten (K) for 4- to 6-year-olds through to twelfth grade (12) for 17- to 19-year-olds) teaching force, but account for about 13% of all teacher turnover. Thus, they have a small but disproportionate contribution to system-wide teacher supply and demand imbalances. But, in addition, high levels of teacher turnover in small private schools are of both theoretical and policy concern because these are the very schools that presumably are most likely to have a performance-enhancing, tight-knit community. Notably, in previous research Ingersoll found that private school teachers are far more likely to switch to public (UK: state) school jobs than public (state) school teachers are to switch to private school jobs. Indeed, almost half of those who migrate from private school teaching jobs to other teaching jobs move to public (state) schools (Ingersoll, 1995a). These findings stand out because teachers in private schools consistently report higher levels of job satisfaction and more positive school climates than do teachers in other kinds of schools (e.g., Ingersoll, 1997; Reyes, 1990).

What accounts for these findings? Ingersoll's analysis indicates that one reason for high rates of turnover in small private schools is teacher compensation. The data suggest that, despite high levels of job satisfaction, some teachers in small private schools depart because they cannot afford to remain. However, low salaries are not the only reason for the high level of turnover in small private schools. Significant numbers of those who depart their jobs in these schools report they are dissatisfied with the administration of their school. Although numerous analysts have pointed out the negative consequences of the impersonal, alienated, "shopping mall," organisational climate often found in large public (state) schools (e.g., Bryk, Lee & Smith, 1990), another characteristic often found in this kind of organization is diversity. These schools may, intentionally or unintentionally, allow more choice and be more tolerant of differences than are private schools. From the viewpoint of teachers, larger public (state) schools lacking such coherence and community may provide more academic freedom and more career options than small private schools.

To use Hirschman's (1970) framework, members who disagree with the policies of an organisation face three basic options: exit, voice, or loyalty. For teachers who disagree with school policies, large public (state) schools may be more likely to provide options, other than either conformity to existing policies or exit from the job. Moreover, simply by virtue of their size, large schools and large school systems may also offer more job and mobility opportunities for teachers either within the school or within the district. In contrast, a coherent mission, clearly defined values, and a tight-knit sense of community may be a source of strength and success in small and religious schools, as argued by Coleman and Hoffer (1987), but may also be a source of conflict. Emphasising one set of goals, values, policies, and programmes, by definition, results in de-emphasising others. From the viewpoint of teachers, Ingersoll argues that the key questions are these:

- Whose policies are emphasised by the school?
- What options and choices are available for those who disagree with the dominant policies, values, and goals?

Ingersoll's hypothesis, reflecting the organisational perspective of his analysis, is that teacher's choices to stay or exit are shaped by particular occupational and organisational conditions in schools. For instance, if the school provides mechanisms for the protection of academic freedom and job security, and mechanisms for voicing opposition (such as teacher unions), those who disagree with school policies will be less likely to exit. However, if there are few mechanisms for the collective or individual expression of disagreement with school policies and few protections for those employees who challenge school policies, those who disagree with school policy will be more likely to exit.

Ingersoll concludes, therefore, that small and religious independent schools are less likely to have teacher unions, tenure provisions, formal mechanisms for collective opposition to school policies, or faculty grievance procedures and, as a result, have higher rates of teacher turnover.

Finally, his study raises another fundamental question: What impact do high rates of teacher turnover have on schools?

Ingersoll's analysis has focused on the effects of school and organisational characteristics on teacher turnover, but he accepts that the reverse is also an important issue and focus in organisational research (e.g., Price, 1989). This is especially pertinent for the case of private (public) schools: What effects do turnover have on the community and performance of these kinds of schools? Of course, Ingersoll says, the departure of individuals who do not share the goals and values of the organisation can be useful to maintain a coherent mission and sense of purpose. After reaching a certain threshold level, however, turnover may become a source of group disintegration, rather than group integration. At such a point, the negative consequences of turnover for organisation stability and coherence would begin to overshadow the positive consequences for the organisation resulting from the elimination of dissension. It is unclear, of course, where this threshold point is for schools, regardless of size and type. The literature Ingersoll reviewed suggests that turnover rates of, for example, almost 25% will likely have a negative impact on organisational performance, especially if these are organisations, such as schools, for which coherence and continuity are deemed important for effectiveness (e.g., Mobley, 1982).

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A second paper from the US offers another useful and detailed international comparison. This paper, published in September 2005 by the Education Commission of the States and entitled 'Eight questions on teacher recruitment and retention' was written by Michael B Allen. It argues that there has long been widespread recognition by policymakers, educators and the American public that "all children do not have the top-notch teachers they need to realise their full potential as learners" and posits eight questions to help us understand how to recruit more high-quality individuals into teaching and how to avoid teachers leaving the profession.

The first question posed by the report is: ***What are the characteristics of those individuals who enter teaching?***

The report says that the US teacher workforce continues to be predominantly white (86%) and female (79%). Although that trend has changed little over the last 30 years, there are several nuances worth noting. The research provides moderate evidence that a larger percentage of the most intellectually able women decide to enter careers other than teaching now that more career opportunities are open to them. But there is also moderate evidence that one of the reasons for women's strong interest in teaching as a profession is – and likely will continue to be – the opportunity it affords to take time out to raise a family.

Regarding the low percentage of minorities in the teaching profession, the report argues that there is limited evidence that one of the reasons is the barrier that teacher certification examinations pose to minority teacher candidates. Much has been made in recent years of the issue of the intellectual ability of teachers in comparison with other college graduates. The research provides strong evidence that those college graduates with the very highest demonstrated intellectual proficiency are less likely to go into teaching than other college graduates. There is also limited evidence that poor hiring practices may be, in part, to blame for this.

Research in the US suggests that policymakers should, first of all, intensify their efforts to recruit capable minorities into teaching and to discover what accounts for their underrepresentation in the profession, although the likelihood of increasing minority representation significantly in the profession is, Allen says, small. Similarly, although it seems unlikely that teaching ever will attract a large percentage of the most academically talented individuals, policymakers should continue to seek to attract as able a teacher corps as possible.

The second question posed by the report is: ***How do those individuals who remain in teaching compare with those who leave?***

US research provides strong evidence that teacher attrition is most severe among beginning teachers but the likelihood of a teacher leaving declines significantly after he or she has been in the classroom for four to five years, and then increases again markedly after 25-30 years in the profession. Roughly 50% of teachers in the US leave their

initial assignment – but not necessarily the profession itself – in the first five years of their career. There is limited evidence that younger beginning teachers are more likely to leave than those who were slightly older.

The literature Allen reviewed for his paper also indicates younger women are the most likely to leave teaching, and there is moderate evidence that pregnancy and childrearing are key reasons why. This means it is possible a significant number of women who quit to raise a family return to teaching once their children are older, a possibility consistent with the limited evidence. Consistent with this possibility, several studies provide limited evidence that women who enter teaching at a more mature age are much less likely to leave than those who begin teaching when they are much younger.

The literature Allen reviewed also provides moderate evidence that white teachers have greater rates of attrition than either African American or Hispanic teachers, and it offers limited evidence that minority teachers are more likely than white teachers to remain in schools with higher proportions of minority students.

Regarding the relationship between academic qualifications and teacher attrition, the literature Allen reviewed provides limited evidence that teachers teaching in a field in which they have subject expertise or certification are less likely to leave than teachers with less appropriate qualifications. It provides strong evidence that attrition is greater among middle school and high school teachers than among elementary school teachers, and it provides moderate evidence that science and mathematics teachers are more likely to leave their jobs than secondary school teachers of other subjects.

Regarding the impact of intellectual proficiency, the literature provides limited evidence that teachers with high intellectual proficiency are more likely to leave teaching than teachers with significantly lower intellectual proficiency.

Research in the US suggests that it is important to examine more closely the reasons why white teachers leave schools with high percentages of minority students, and to develop strategies that may curb that tendency. Of particular importance, argues Allen, is stemming the attrition of teachers – whether white or minority – who teach mathematics and science. Also worthy of study are the reasons for the higher rate of attrition among the more intellectually capable teachers and appropriate policy responses. Some of these many involve fiscal considerations.

The third question posed by the report is: ***What are the characteristics of schools and districts most likely to be successful in recruiting and retaining teachers?***

The research Allen reviewed for this question provides strong evidence that attrition is greater among secondary school teachers than among elementary (primary) school teachers. However, on the more specific issue of middle school attrition in comparison to high school or elementary school attrition, Allen found the literature inconclusive.

Consistent with common perceptions, the research literature Allen reviewed provides moderate evidence that teacher turnover is greater in schools with relatively higher proportions of low-income, minority and academically low-performing students. The literature also provides limited evidence that the qualifications of teachers in such schools tend to be inferior to the qualifications of teachers in other schools.

Finally, the literature Allen reviewed provides limited support for the conclusion that teacher turnover is greater at private schools than at state-funded schools, and that turnover is also greater in small schools, both public and state, than in larger schools.

One of the implications of the research literature, Allen argues, is that educators and policymakers must focus particular attention on stemming teacher attrition in secondary schools, and especially in mathematics and science. The literature also confirms the importance of addressing the issue of teacher recruitment and retention in schools with high percentages of low-income and minority students.

Finally, although the reasons are not clear, the fact that attrition in smaller schools is greater than in larger schools and greater in public schools than in state schools should raise a caution among those who advocate for reduction in school size and those who advocate for greater school privatisation. While either of these might, all things considered, be reasonable policy alternatives, it is important to try to determine with greater confidence what impact moving in either direction would likely have on the supply and persistence of our nation's teachers.

The fourth question the paper poses is: ***What impact do the working conditions in schools have on their ability to recruit and retain teachers?***

Allen says the research literature, on the whole, is not sufficiently robust or fine-grained to support more than the most general observations as to the impact of various factors associated with working conditions on teacher recruitment and retention. The research does, however, provide support – albeit limited - for the expected conclusion that schools with greater administrative support (i.e. support from SLT) and teacher autonomy have lower teacher attrition.

While there remains a good deal of interest in class-size reduction in the US as a means of improving teacher working conditions and thus, presumably, increasing teacher retention, the literature Allen reviewed that was in support of such a strategy was, in his view, inconclusive. Several studies do indeed suggest that class-size reduction stems teacher attrition, but the actual impact reported is extremely small. A reduction in teachers' workload also is often touted as a measure that will increase teacher satisfaction and thereby reduce attrition, but here, too, the literature in support of this contention is inconclusive.

The research evidence in support of the impact on teacher recruitment and retention of any single factor or set of factors related to working conditions is, Allen says, modest at best. Still, there is sufficient research to indicate the working conditions of teachers should be an important policy concern, especially in at-risk schools. One measure likely to be helpful, though not discussed robustly in the research literature, is to provide teachers with strong administrative support (support from SLT) and adequate autonomy. The fact that "adequate autonomy" is a somewhat subjective determination suggests the importance of considering teachers' perceptions of their working conditions, as well as more objective measures, in setting policy.

Finally, although the research literature provides no guidance on the issue of class size, it seems reasonable – Allen argues - to suppose that larger classes are less negative a factor if working conditions are otherwise conducive to teacher satisfaction. This may imply that policymakers should attempt to determine which measures to increase teachers' job satisfaction are most cost effective and most feasible given demographic realities, labour market considerations and the availability of various resources in their particular state or district.

The fifth question posed by the paper is: ***What impact does compensation (which, in the UK, we might interpret as financial incentives such as enlarged salaries, 'golden handshakes' and 'golden handcuffs', and R&R bonuses and TLRs) have on the recruitment and retention of teachers?***

The research Allen reviewed provides strong support for the conclusion that compensation plays a key role in the recruitment and retention of teachers. Not surprisingly, the research indicates that increasing compensation tends to increase the rate of teacher retention, but – Allen says - this relationship is not a simple one…

Compensation has a varying impact on retention depending on other factors such as teachers' gender, level of experience and current job satisfaction. There is moderate evidence that working conditions may, in some cases, trump salary as a factor in teacher retention. The research evidence is inconclusive as to whether limited career-advancement opportunities in teaching contribute to attrition.

In terms of teacher recruitment, there is – Allen says - limited evidence of a positive correlation between recruitment and various financial incentives. With regard to teacher quality, the research is inconclusive as to whether financial incentives have an impact.

Given the complexity of the issue of compensation and the interaction of compensation with other factors such as working conditions and general job satisfaction, drawing the implications of the research for policy is not an easy matter. The clearest recommendation that can be made, according to Allen, is for policymakers to ensure teacher salaries in their state or district (which we might interpret as local authority or academy trust) are comparable to those in neighbouring states and districts. The research Allen reviewed does not provide any guidance on the issue of differentiated teacher pay or on across-the-board salary increases.

The sixth question posed by the paper is: ***What impact do various strategies related to teacher preparation have on teacher recruitment and retention?***

The research Allen reviewed in the US provides limited support for the modest conclusion that the retention rates of alternative route graduates can be comparable to, and even exceed, that of traditional route graduates. This has a bearing in the UK as the number of routes into teaching have increased in recent years with school-based ITT programmes (e.g. School Direct and SCITT) and Teach First competing with traditional HEI graduate and postgraduate routes.

However, Allen cautions that, given the great variation within both types of preparation programmes, generalisations about their relative success cannot be made. The research also provides limited evidence that some alternative programmes are successful in recruiting a constituency into teaching that is more diverse ethnically and in age than the profession as a whole. As far as the impact of imposing more stringent requirements for entrance into teacher preparation, the research literature is inconclusive.

The seventh question posed by the paper is: ***What impact do induction and mentoring have on teacher retention?***

The American research literature Allen reviewed for his report provides limited evidence that induction and mentoring can increase teacher retention. The diversity among the induction and mentoring programmes discussed in the literature, however, and the difficulty of distinguishing between the specific effects of induction and mentoring and those that might be attributed to other factors means the literature is inconclusive as to what precisely makes such programmes successful. Thus, those who are considering implementing such programmes will have to rely on the consensus of expert opinion.

Although the literature reviewed for Allen's report does not provide enthusiastic research-based support for this strategy, it does suggest that induction and mentoring may still be worthwhile. It is important to recognise, however, that the impact of induction and mentoring programmes on beginning teachers is contextual, and likely to be a function of the nature of their ITT programme and of the school in which they are working. In other words, induction and mentoring may be of much greater benefit, and thus be much more cost effective, for some populations of beginning teachers than for others. Allen concludes that a good deal of additional research is needed to provide more definitive guidance for educators and policymakers.

The eight question posed by the paper is: ***What is the efficacy of particular recruitment strategies and policies in bringing new teachers into the profession, including specifically targeted populations?***

Except for ITT-related policies, there were – according to Allen's research - no adequate studies available on the great majority of specific recruitment strategies that have been employed by US states and districts. Thus, he concludes, the research provides no answers to the eight question. This is unfortunate given the importance of

finding effective strategies for recruiting well-qualified individuals into the teaching profession and the significant resources that states and districts currently spend on recruitment efforts.

Clearly, Allen says, there is a need to undertake and support more research on, and more rigorous evaluation of, early recruitment efforts, 'loan-forgiveness' programmes and the many other specific kinds of strategies that have been employed in the US. Such research should enable policymakers and educators to determine, with confidence, (1) whether less of the target population would have gone into teaching had the programmes and strategies in question not been in place and (2) whether any other specific programme goals, such as recruitment into underserved schools or a minimum length of stay in the teaching profession, have been met.

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Finally, and briefly, a paper from the University of Montreal in Canada provides another useful international comparison and again suggests the teacher retention crisis is widespread…

The paper in question is entitled 'Why are New Teachers Leaving the Profession?' and it outlines the results of a Canada-wide survey authored by Thierry Karsenti and Simon Collin.

The authors attempt to set out what can be done to prevent teacher attrition. They argue that **support in general and administrative support in particular** are the most often cited needs that would influence a teacher's decision to leave the profession.

They say that specific teaching conditions, such as a **lighter workload** and **more time for daily preparation**, or the chance to teach the same year group two years in a row, especially for beginning teachers, are also important factors in encouraging teachers to stay. This is all the more understandable, say Karsenti and Collin, when we know that new teachers are usually asked to change year groups several times during the induction period.

Reducing isolation, for instance through **more communication and collaboration with colleagues** and other school staff, is a frequently mentioned need which appears to be directly connected to lack of support as a reason for leaving the profession. However, this is far from the concept of mentoring, for instance by an experienced colleague rather than a member of the administration, and this seems to be the most important requirement to prevent beginning teachers from quitting, as corroborated by the literature Karsenti and Collin reviewed.

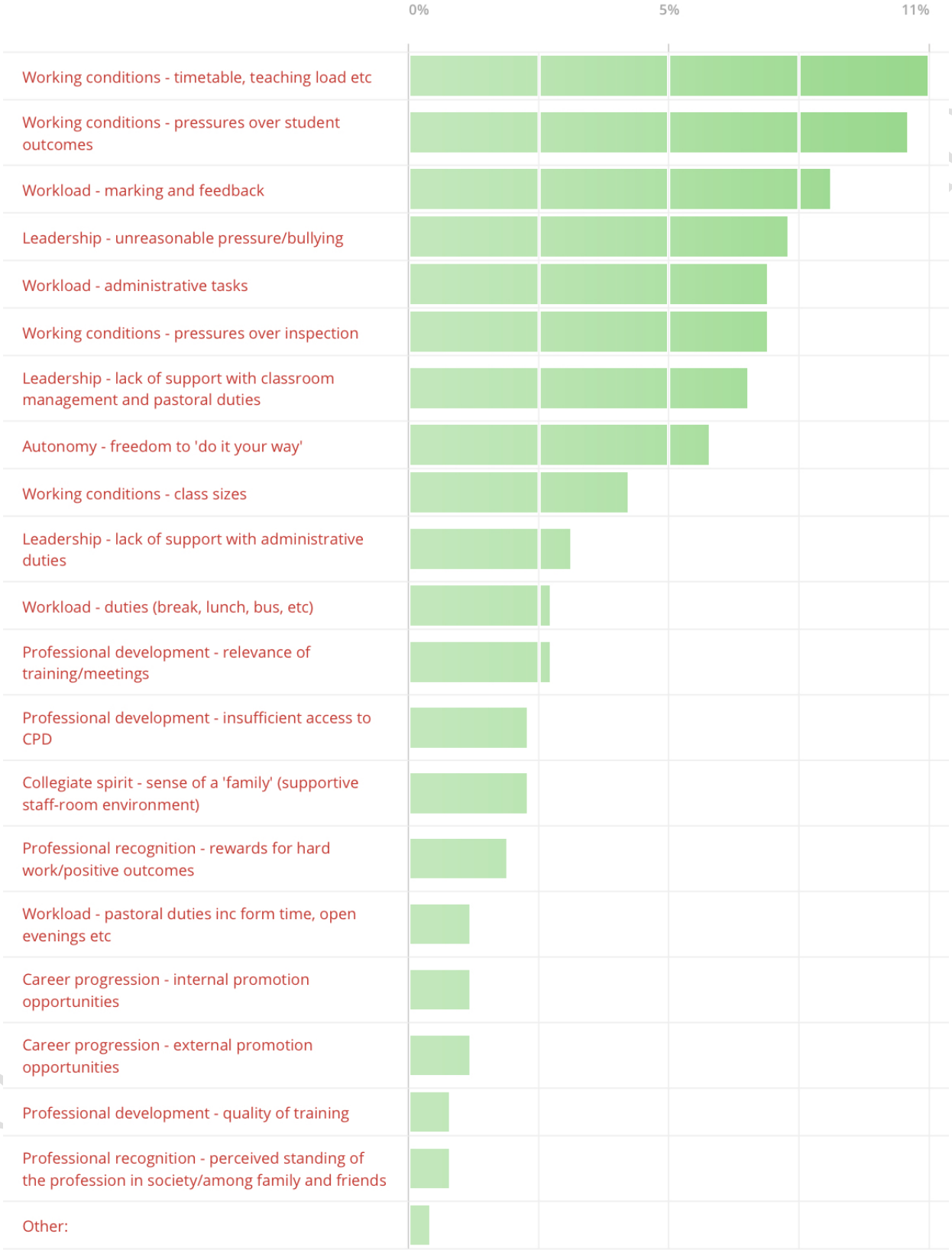
7. SURVEY

In addition to a review of the literature, a survey of teachers' views was conducted exclusively for this report during one week in June 2018. Teachers were asked via social media (Twitter, Facebook and LinkedIn) to answer the question 'Which factor is most likely to lead to you leaving the teaching profession?' The question was multiple-choice and the possible answers – taken from the main findings of this literature review - were as follows:

- Workload - marking and feedback
- Workload - administrative tasks
- Workload - duties (break, lunch, bus, etc)
- Workload - pastoral duties including form time, open evenings etc
- Working conditions - timetable, teaching load etc
- Working conditions - class sizes
- Working conditions - pressures over student outcomes
- Working conditions - pressures over inspection
- Professional development - insufficient access to CPD
- Professional development - relevance of training/meetings
- Professional development - quality of training
- Career progression - internal promotion opportunities
- Career progression - external promotion opportunities
- Leadership - lack of support with classroom management and pastoral duties
- Leadership - lack of support with administrative duties
- Leadership - unreasonable pressure/bullying
- Professional recognition - rewards for hard work/positive outcomes
- Professional recognition - perceived standing of the profession in society/among family and friends
- Autonomy - freedom to 'do it your way'
- Collegiate spirit - sense of a 'family' (supportive staff-room environment)
- Other (please comment)

A full table of results is shown on the next page. There were 226 responses and a majority 11.5% of teachers cited 'Working conditions – timetable, teaching load' as the most likely cause of their decision to quit. 11.06% of responders said 'Working conditions – pressures over student outcomes' would force them out of the profession, whilst 9.29% said 'Workload – marking and feedback' would lead to them leaving teaching. In fourth place was 'Leadership – unreasonable pressure/bullying' with 8.41% of votes.

Which factor is most likely to lead to you leaving the teaching profession?



8. THEMATIC REVIEW

The body of this report is organised thematically using the main reasons teacher quit the profession (those also used in the survey) as section headings. Accordingly, the following pages review in turn what the literature has to say about:

1. Workload
2. Working conditions
3. Leadership
4. Professional development
5. Professional recognition and career progression
6. Autonomy and collegiate spirit

8.1 WHY TEACHERS QUIT #1: *WORKLOAD*

According to a report by the House of Commons Education Committee, 'Recruitment and retention of teachers', published in February 2017, teacher workload is a major factor influencing retention.

Teachers in England work longer hours than many other OECD countries. The EPI found teachers in England work an average of 48.2 hours per week, 19% longer than the average in other countries and third highest overall. 20.4 of these hours are spent teaching, which is the same as the average across OECD countries.

The EPI report also found that a considerable proportion of teachers in England find their workload unmanageable: When asked about the extent to which they agree with the statement "My workload is unmanageable", 38 per cent of teachers agreed and 13 per cent strongly agreed, whilst only 3 per cent strongly disagreed.

The government's 'Workload Challenge' was launched in October 2014 and identified **marking, planning and data management** as three areas that exacerbate teacher workload.

Witnesses giving evidence to the Committee consistently welcomed the recommendations following the workload challenge, but some expressed scepticism as to whether it would have real impact in schools. Dame Alison Peacock, CEO of the Chartered College of Teaching, described how teachers feel about it: "I am sure teachers watching this would say, "Yes, but while I have this, there are 60 books to mark tonight. I do not have time to read the workload document to work out what I need to do to reduce my workload. While my Head does not have time to read it either, probably things are not going to change in my school."

Dame Alison went on to describe to the Committee how school leaders can be preoccupied with other changes in the school system: "While we have lots of Government change in terms of assessment, and while we have people not knowing where they are in terms of the syllabus for GCSE, all those kinds of pressures mean that it still feels very pressured for teachers."

She also told the Committee that "workload is inextricably linked to the accountability agenda".

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According to a report by CooperGibson Research on behalf of the Department for Education entitled 'Factors affecting teacher retention: qualitative investigation' published in March 2018, for most teachers a significant reduction in their workload would have led them to reconsider their decision to leave.

As well as supporting schools to implement recommendations of the Workload Review Groups, CooperGibson argues that sharing and making accessible good practice examples of success in schools would be beneficial. Supporting teachers with confidence to plan and mark efficiently and effectively and supporting senior leaders to implement the necessary changes, would also be important contributions.

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In a paper entitled 'Is the Grass Greener Beyond Teaching?' published in December 2017 as part of the NFER's Teacher Retention and Turnover Research Research project, the author Jack Worth argues that teachers do not leave the profession for higher-paid jobs: in fact, upon leaving, overall pay decreases although hourly wages stay the

same, suggesting teachers leave the profession for reasons other than financial. Chief amongst those reasons is workload and working hours.

According to the NFER research, leavers' working hours decrease and many secondary leavers take up part-time positions. Among secondary teachers who leave, the proportion working part-time increases by twenty percentage points after leaving, whereas there is no increase among primary leavers. This suggests that secondary teachers find it more difficult to arrange part-time working and reinforces an earlier finding (Worth, et al. 2017) that secondary schools are less good than primary schools at accommodating part-time working. The NFER argues that

The NFER argue that the government and other secondary-sector stakeholders need to urgently look at ways of accommodating more part-time working in secondary schools, in order to retain teachers who are at risk of leaving. Greater flexibility in working patterns may also encourage former teachers who left the profession, for example to look after children or other relatives, to return to work part-time.

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In a paper entitled 'Disappearing Teachers: An Exploration of a Variety of Views as to the Causes of the Problems Affecting Teacher Recruitment and Retention in England' published in Education Policy, Reforms and School Leadership for the Bulgarian Comparative Education Society (BCES) in 2017, the author Gillian Hilton discusses the causes of the difficulties experienced in recruiting and retaining teachers to work in schools in England. Hilton cites Santry (2016) and Ward (2016) who both report that experienced teachers are leaving the profession in an attempt to lead less stressful lives with some stepping down to become private tutors, teaching assistants in another teacher's classroom, or cover supervisors where the weight of responsibility and accountability are considered far less. Santry also notes the numbers of teachers now retiring early, as they no longer felt able to cope with the expectations of government and inspectors.

Hilton says that a greater number of teachers than previously are now seeking work overseas in international schools, where pay is higher and the stress and demands on staff are considered far less acute (see Barker, 2016).

Rustin's (2016) research on the reasons for leaving the profession, Hilton says, raises the constant changes made by governments to the curriculum, the assessment process and the teachers' lack of control over their own work, coupled with the stultifying form filling and report writing all resulting in stress and a feeling of being exploited, and creating unnecessary and unsustainable workload.

8.2 WHY TEACHERS QUIT #2: *WORKING CONDITIONS*

According to the CooperGibson Research report (DfE 2018), flexible working and part-time contracts were generally viewed positively by teachers. Some viewed these as a way to secure a better work-life balance.

Increasing opportunities for flexible working may also have a role in helping to retain teachers in the profession, say CooperGibson, but offering such opportunities without addressing fundamental issues around teacher workload is unlikely to have a significant impact.

Although pay was not the driver for many teachers, it was stated by most that the pay levels were not reflective of teachers' expertise, experience and dedication. Some suggestions included grants/funding for teacher training and better pay/incentives for staying in teaching.

Early career teachers surveyed in the CooperGibson research viewed the prompt around removal of pastoral responsibilities positively; however, many felt that it was an integral part of the role.

A 'sympathetic timetable' (focusing on fewer year groups as an early career teacher) was viewed positively by around one-third (n=20) of secondary teachers. Considerations included how flexibility could be offered to early career teachers who want broader teaching experience, how pastoral responsibilities could be gently phased in and how these could be managed practically in school.

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A Learning Policy Institute paper from the US entitled 'Teacher turnover: Why it matters and what we can do about it', authored by Carver-Thomas and Darling-Hammond and published in 2017, argues that previous research indicates that teachers are more likely to continue teaching and stay at their schools when their wages increase and are comparable with job opportunities in other industries or in nearby US districts.

In addition to wage comparability, data from the US National Center for Education Statistics 5-year longitudinal study show that teachers whose first-year salary was less than $40,000 (c£30,000 at the time of writing) had an attrition rate 10 percentage points higher than teachers who earned more in their first year.

Carver-Thomas and Darling-Hammond found that the level of beginning teacher salaries was not predictive of teacher turnover after controlling for district type, class size, and other school factors; however, the highest possible district salary was related to teacher turnover. That is, teachers who could one day expect to earn more than $78,000 (c£58,000) at the highest end of their district salary schedules - the top quintile of teachers - had a predicted turnover rate 31% lower than those with maximum district salaries less than $60,000 (c£45,000) - the bottom quintile of teachers. Teachers in districts that offered salaries up to $72,000 to $78,000 (c£54,000-£58,000) were 20% less likely to turn over than those in the bottom quintile.

Carver-Thomas and Darling-Hammond identified several other workplace conditions associated with teacher turnover, including experiences with professional development, facilities, teaching resources, parental involvement, instructional leadership, time for collaboration and planning, school culture, collegial relationships, and decision-making power.

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An article by Sarah Marsh entitled 'Fact or Fiction? The reasons teachers choose the job – and quit', published by the Guardian Teacher Network in October 2016, meanwhile, claimed that teachers enter the profession for a variety of reasons but mainly to make a difference to the lives of the children (92%). Many, however, are quickly disillusioned, with poor pay and bad behaviour being high on the list of complaints about the job.

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In a paper entitled 'Disappearing Teachers: An Exploration of a Variety of Views as to the Causes of the Problems Affecting Teacher Recruitment and Retention in England' published in Education Policy, Reforms and School Leadership for the Bulgarian Comparative Education Society (BCES) in 2017, the author Gillian Hilton discusses the causes of the difficulties experienced in recruiting and retaining teachers to work in schools in England. The workload issue, however, seems to have come to the fore, Hilton says. Despite promises made by government to look into the problem, little – she says - has been done and the constant changes to the curriculum, assessment processes and demands for constant data gathering are making the job of a teacher impossible and unattractive. Here Hilton cites Woodcock (2016) who, writing in *The Times* newspaper, suggested that Ofsted should look at teacher turnover figures when making judgments on a school's success levels. The Times article also reported that one of the groups examining teacher retention has suggested that schools should be held accountable for the well-being of their staff.

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In a paper entitled 'The effects of school facility quality on teacher retention in urban school districts' by Jack Buckley of the Lynch School of Education, Boston College, Mark Schneider of the Department of Political Science, Stony Brook University, and Yi Shang of the Lynch School of Education, Boston College, published in February 2004, the authors posit that the quality of school facilities is a significant – albeit often overlooked – cause of teachers quitting the profession.

They investigated the importance of facility quality using data from a survey of K-12 (compulsory education) teachers in Washington, D.C and found in their sample that facility quality was an important predictor of the decision of teachers to leave their position.

Buckley, Schneider and Shang begin by surveying the landscape. They say that school staffing problems are caused as much by teacher attrition as by the failure to attract new teachers. Indeed, research has shown that approximately one-quarter of all beginning teachers in the US leave teaching within four years (Benner 2000; Rowan et al. 2002).

In general, the authors say, teachers list family or personal reasons, such as pregnancy, the demands of child rearing, and health problems as reasons for leaving the profession. Job dissatisfaction, primarily due to poor salary, poor administrative support, and student discipline problems, is also among the most frequent reasons teachers give for leaving the profession (Tye and O'Brien 2002; Ingersoll 2001; MacDonald 1999).

In addition, some qualitative research indicates that more general factors, including government policies, portrayal of teachers in the mass media, and community attitudes, also influence teachers' general esteem and status in society, which features largely in their professional commitment and morale.

Salary

Buckley, Schneider and Shang argue that low wages (especially considering the number of years of higher education that the average, state- certified teacher has completed) are a major cause of teacher attrition. For example, in a 2002 survey, teachers in California who are considering leaving the profession ranked "salary considerations" as the most important factor driving their decision (Tye and O'Brien 2002). Similarly, Gritz and Theobold (1996) found that

compensation was the most important influence on the decision to remain in the profession for male teachers and experienced female teachers.

Using the National Longitudinal Study of the High School Class of 1972 (NLS-72), Stinebrickner (2001) developed a more complex model of the effect of wages on attrition in the context of the larger labour market. According to this research, as cited by Buckley, Schneider and Shang, graduate education and teaching experience were significant determinants of teaching salary, which, in turn, had a positive effect on teacher retention. While men and women receive similar wages in teaching, men have much greater opportunities for higher-paying non- teaching jobs.

The idealism of teachers also matters, so say Buckley, Schneider and Shang. Perhaps counter- intuitively, there are higher attrition rates in the US among teachers who have a strong "service ethic" (measured by the importance of service to society for individual teachers relative to other motivations to teach). Miech and Elder (1996), for example, found that evidence of this effect is still strong after controlling for variables such as family socio-economic background, occupational commitment, salary, marital status, number of children, public-private (state-independent) schools, race, employment history, and academic ability. Miech and Elder offer various explanations for the high attrition rates among idealists, perhaps the most compelling – so say Buckley, Schneider and Shang - suggests that school environment in general provides less than sufficient guidance on the goals, means, and evaluation of their work and people who are highly service-motivated get easily frustrated with this uncertainty.

Working conditions

Hanushek, Kain and Rivkin (forthcoming) argue that, while clearly important, teacher salaries are not all that matter. Rather, according to their study, "teachers might be willing to take lower salaries in exchange for better working conditions" (also see Antos and Rosen 1975; Chambers 1977; Murnane 1981; Baugh and Stone 1982; and Hanushek and Lugue 2000).

Rosenholtz and Simpson (1990), meanwhile, offer a detailed analysis of how organisational factors contribute to teacher's commitment to the workplace. Their evidence shows that school **management of student behaviour** and the burden of non-teaching obligations affect new teachers' commitment much more than it does experienced teachers (see also Hargreaves 1994; Macdonald 1995). On the other hand, experienced teachers appear to be more concerned with the discretion and **autonomy** they have in their schools.

Resources

Rosenholtz and Simpson (1990) found that teachers' commitment to the workplace, measured by their disaffection, absenteeism, and defection, was highly correlated with turnover. The lack of resources in a school, they argued, contributed to teacher job dissatisfaction, which then can lead to attrition.

In interviews with public (i.e. state) school teachers in New York City, a large percentage of new teachers told Rosenholtz and Simpson that they did not have access to adequate basic supplies. Most teachers had to use their own money to equip their classroom. Of the teachers interviewed, 26 percent reported spending $300 to $1000 of their own funds on classroom supplies over the year, 14 percent spent $100 to $200, and 12 percent $50 to $75. In addition to this, most teachers reported that they did not have enough textbooks or that the textbooks they did have were in poor condition. In turn, photocopying materials becomes a considerable part of their tasks, but school copy machines are frequently broken, and teachers have to rely on family, friends, or other private resources to reproduce the materials (Tapper 1995).

Buckley, Schneider and Shang argue that, although myriad factors clearly affect teacher retention, most teaching takes place in a specific physical location (a school building) and the quality of that location can affect the ability of teachers to teach, teacher morale, and the very health and safety of teachers. Despite the importance of the condition of

school buildings, serious deficiencies have been well documented, particularly in large, urban school districts in the US (see for example, GAO 1995). The authors say that many factors contribute to the quality of the school building and, in turn, affect the quality of teacher life and educational outcomes. For example, poor indoor air quality (IAQ) is widespread (as indeed it is in the UK: many column inches have been dedicated to poor air quality in and around schools, particularly in parts of London, recently) and many US schools suffer from "sick building syndrome" (see, for example, EPA 2000), which in turn increases student absenteeism and reduces student performance (see EPA 2000; Kennedy 2001; Leach 1997; Smedje and Norback 1999; Rosen and Richardson 1999).

Another area in which research has linked school facilities to teacher performance is thermal comfort, say Buckley, Schneider and Shang. They cite Lowe (1990) who found that the best teachers in the US (winners of State Teachers of the Year awards) emphasised their ability to control classroom temperature as central to the performance of both teachers and students. Lackney (1999), meanwhile, found that teachers believe thermal comfort affects both teaching quality and student achievement. Corcoran et al. (1988) focused on how the physical condition of school facilities, including thermal factors, affects teacher morale and effectiveness (also see Heschong Mahone Group 2002).

Classroom lighting also plays a particularly critical role in student performance (Phillips 1997). Jago and Tanner (1999) cite results of seventeen studies from the mid- 1930s to 1997. The consensus of these studies is that appropriate lighting improves test scores, reduces off-task behaviour, and plays a significant role in the achievement of students. Over 21% of the Washington DC teachers that responded to Buckley, Schneider and Shang's study reported that the lighting in their school was inadequate.

Lemasters' (1997) synthesis of 53 studies pertaining to school facilities, student achievement, and student behaviour – as cited by Buckley, Schneider and Shang - reports that daylight fosters higher student achievement. The study by the Heschong Mahone Group, covering more than 2000 classrooms in three US school districts, is perhaps the most cited evidence about the effects of daylight. The study indicated that students with the most classroom daylight progressed 20% faster in one year on math tests and 26% faster on reading tests than those students who learned in environments that received the least amount of natural light (Heschong Mahone Group 1999; also see Plympton, Conway and Epstein 2000). Despite the importance of natural lighting for learning and achievement, over 20% of the teachers in Washington DC reported that they can't see through the windows in their classroom.

The final facility condition that Buckley, Schneider and Shang note pertains to noise levels. The research linking acoustics to learning is consistent and convincing, they say: good acoustics are fundamental to good academic performance. Earthman and Lemasters (1997) report three key findings: that higher student achievement is associated with schools that have less external noise, that outside noise causes increased student dissatisfaction with their classrooms, and that excessive noise causes stress in students (1997:18; also see Crandell, Smaldino, and Flexer 1995; Nabelek and Nabelek 1994; ASHA 1995; Crandell 1991; Crandell and Bess 1986; and Evans and Maxwell 1999). Teachers also attach importance to noise levels in classrooms and schools. Lackney (1999) found that teachers believe that noise impairs academic performance. Indeed, so say Buckley, Schneider and Shang, it appears that external noise causes more discomfort and lowered efficiency for teachers than for students (Lucas 1981).

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In a discussion paper entitled 'Why Teach?' published by Pearson and the think tank LKMCo in October 2015, the authors argue that the role of ***financial incentives*** in teachers' decision-making is complicated and contested.

The literature, they say, suggests that teachers tend to be more attracted to 'intrinsic' factors like professional satisfaction. What probably works better is raising of the prestige and status of the profession. On the other hand, although financial rewards may play a weak role in drawing teachers into the profession, lack of financial reward can be a reason for leaving the profession. This is consistent with Pearson/LKMCo's findings which suggest that teachers' pay is far more important as a reason for staying in the profession than for entering it but teachers who are

considering leaving the profession are often doing so partly because of pay. Furthermore, Manuel and Hughes (2006) find that while salary might not drive people to teach, it can be a significant factor in discouraging people from doing so. Bradley, Green and Leeves (2006) argue that salary can affect mobility and that paying teachers more to work in certain areas can encourage movement (although this effect is only statistically significant for the least and most experienced teachers). Hanushek et al (2004) note that teacher mobility is lower in schools where wages are higher but note that this might be because working conditions tend to be better where salary is higher. It may therefore not be salary that makes the difference. They also show that drastic increases in salary are needed to neutralise the exit rates of teachers from schools with low-achieving, disadvantaged students.

Pearson/LKMCo's review suggests that improving ***working conditions*** - in particular by strengthening weak leadership and management - may be a more powerful tool in retaining teachers within particular schools, compared to increased pay. In fact, their survey data shows that some teachers choose jobs in challenging schools in relatively remote areas in order to work for outstanding leaders. Pearson/LKMCo also found that senior leaders' choices of schools are heavily influenced by the Head they will be working for. However, they found that practical considerations around commutability and quality of life are of crucial importance and that the role of pay should not be neglected.

According to Jantzen, 1981 and Richardson and Watt, 2007, the importance of salary can become particularly salient in times of economic downturn. This tallies with the accounts given by several of the interviewees who took part in Pearson/LKMCo's survey who referred to the effect of the recent recession and with current concerns amongst researchers and policy makers that an economic recovery might result in challenges for recruitment. On the other hand, some researchers note that specific variables shape recruitment and retention rather than simply overall economic performance: Dolton, Tremayne and Chung (2010) find that attrition rates tend to drop when unemployment increases and that increased overall graduate employment is linked to a fall in the pool of inactive teachers. However, the effects they find are small and tend to affect men more than women. Similarly, Bradley, Green and Leeves (2006) find that male teacher turnover rates tend to increase when 'outside' wages are higher.

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A paper entitled 'The Influence of School Administrators on Teacher Retention Decisions' authored by Donald Boyd, Pamela Grossman, Marsha Ing, Hamilton Lankford, and James Wyckoff and published in December 2009, argues that working conditions, aside from those directly resulting from student composition, affect teachers' career decisions. A lot of the literature on the subject use cross-sectional data to link teachers' self-reports of school working conditions to measures of their own satisfaction and plans for the future. However, this approach, Boyd et al warn, has the potential bias that less satisfied teachers will misrepresent school working conditions and consequently the correlations between working conditions and satisfaction will reflect only reporting bias and not true working conditions. A set of studies using the US Schools and Staffing Surveys have estimated the relationship between self-reported working conditions and attrition (see Grissom, 2008; Ingersoll, 2001) but even there, lack of controls for inaccurate self-reporting may bias the findings.

The Boyd et al study, by contrast, uses first year teachers' reports of working conditions to assess the effect of working conditions on the turnover behaviour of other teachers in the school. Since the reporting teachers and the teachers for whom Boyd et al model turnover are not the same, the report authors reduce the problem of self-reporting bias that is correlated with career decisions. They also triangulate their findings with teachers' own reports of why they left or considered leaving in a follow-up survey. While they address multiple measures of school context – including teachers' influence over school policy, the effectiveness of the school administration, staff relations, student behaviour, facilities, and safety – the results of both analyses point to the importance of working conditions and particularly of administrative support in teacher retention.

8.3 WHY TEACHERS QUIT #3: *LEADERSHIP*

In a paper entitled 'Is the Grass Greener Beyond Teaching?' published in December 2017 as part of the NFER's Teacher Retention and Turnover Research Research project, the author Jack Worth argues that there is a strong relationship between teacher job satisfaction and the leadership quality in their school, and that leadership is also associated with the extent to which teachers regard their workload as manageable. The NFER concludes that nurturing, supporting, and valuing teachers is vital to keep their job satisfaction and engagement high and improve their retention in the profession. Senior leaders, they argue, should regularly monitor the job satisfaction and engagement of their staff. School leaders, Government and Ofsted need to work together to review the impact their actions are having on teacher workload, to identify practical actions that can be taken to reduce this.

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According to a report by CooperGibson Research on behalf of the Department for Education entitled 'Factors affecting teacher retention: qualitative investigation' published in March 2018, greater levels of support and understanding from SLT was needed, for example, in terms of the management of pupil behaviour, and the ability to have open and honest conversations. This would help support teachers' relationships with their SLT and reduce feelings of pressure in terms of scrutiny, accountability and workload. Considerations would be how the message to senior leaders and teachers can be strengthened to dispel the myths around inspection and the commitment to reduce workload. This would mean giving greater confidence and support to senior leaders to address workload and well-being.

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Meanwhile, a Learning Policy Institute paper from the US entitled 'Teacher turnover: Why it matters and what we can do about it', authored by Carver-Thomas and Darling-Hammond and published in 2017, says that ***school leadership, collegial relationships, and school culture*** are of particular importance to teacher retention.

With controls for student and teacher characteristics, their analysis found that the workplace condition most predictive of teacher turnover in the US was a ***perceived lack of administrative support***, a construct that measures how teachers rate an administrator's ability to encourage and acknowledge staff, communicate a clear vision, and generally run a school well. When teachers strongly disagree that their administration is supportive, they are more than twice as likely to move schools or leave teaching than when they strongly agree that their administration is supportive. This finding is consistent with other studies that similarly have found that more effective headteachers/principals were associated with higher rates of teacher satisfaction and lower teacher turnover, especially in high-needs schools.

Holding all else constant, including administrative support, Carver-Thomas and Darling-Hammond did not find independent, significant effects on turnover of other workplace conditions, including ***student behaviour, parent support, school resources, duties and paperwork*** that interfere with teaching, collegial support, concerns about job security due to accountability measures, classroom control, or teacher influence over school decisions. It is possible that the strong impact of administrative support on turnover in their model subsumes many of these variables, since school leaders have an effect on most aspects of school operations, including virtually all of these factors.

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A paper entitled 'The Influence of School Administrators on Teacher Retention Decisions' authored by Donald Boyd, Pamela Grossman, Marsha Ing, Hamilton Lankford, and James Wyckoff and published in December 2009, argues that the importance of administration and ***school leadership*** to teacher retention is not surprising. A substantial research literature provides evidence that school leaders matter for teachers and students. While only a small body of research links headteachers/principals directly to student achievement (Branch, Hanushek & Rivkin, 2009; Hallinger & Heck, 1996), a much larger research base documents headteacher/principals' effects on school operations, through motivating teachers and students, identifying and articulating vision and goals, developing high performance expectations, fostering communication, allocating resources, and developing organisational structures to support instruction and learning (Knapp, Copland, Plecki & Portin, 2006; Lee, Bryk and Smith, 1993; Leithwood, Louis, Anderson & Wahlstrom, 2004).

Headteachers/principals also affect the instructional quality of schools through the recruitment, development, and retention of teachers (Harris, Rutledge, Ingle & Thompson, 2006).

It is also not surprising, Boyd et al argue, that working conditions explain at least part of the higher attrition of teachers serving non-white, low-performing, and low-income students. First, school leaders are subject to many of the same labour market dynamics as teachers. Horng, Kalogrides, and Loeb (2009), for example, find that headteachers/principals express preferences for schools with higher performing students and lower concentrations of students in poverty and that principals, like teachers, move towards these more desirable schools when given the opportunity. In addition, the job of principal is likely to be more difficult in these difficult-to-staff schools with higher teacher turnover and greater accountability pressures. Thus schools with high proportions of low-income, non-white and low-performing students tend to have principals who are in less demand, such as new principals (Boyd et. al., 2009).

In many ways the importance of working conditions as distinct from student-body characteristics is good news from a policy perspective, since it is the job of schools to serve all students, and other working conditions are amenable to policy change. The Boyd et al study suggests that policies aimed at improving school administration may be effective at reducing teacher turnover. However, they caution, the question of *how* to improve school leadership is a more difficult one. Current reforms in the US aim to recruit high-potential leaders, provide apprenticeship experiences for prospective leaders, and to provide supports for principals while in the job. Improving administrative support in high turnover schools, in particular, may require both more effective leaders, overall, and incentives (not necessarily monetary) so that administrative positions in these schools become more appealing.

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A Teach First report entitled 'Leading Together: Why supporting school leadership matters' published in 2018 reveals that the vast majority (91%) of teachers say the ***quality of leaderships*** is very important to their school's success. Whilst there is no shortage of teachers wanting to make the step up - half (49%) of classroom teachers say they would be interested in taking up a leadership position in the future, and nearly two-thirds (64%) of middle leaders say they would be interested in taking on a more senior position - the demand for support and training is not being met. More than half of teachers (54%) spent no more than a few hours away from their usual work developing their leadership skills in the last year, Teach First found, including 40% who said they spent no time at all.

Teach First argue that nurturing existing talent in schools could help address the leadership shortage and help retain teachers in the profession. Nine out of ten (88%) teachers say their school offering excellent leadership development opportunities would have at least some impact on their likelihood of remaining at their school, with a third of teachers (34%) saying it would have a great impact. Support for school leadership, Teach First argue, too often focuses on individuals or so-called 'super heads' and yet evidence shows that whole-school approaches are more sustainable and 85 per cent of teachers and leaders say it is important that leadership training involves the whole team.

The Teach First report goes on to say that the focus of developing great leaders should always be on the impact it can have on outcomes for pupils. But offering meaningful development opportunities to those not yet in senior leadership – either middle leaders or classroom teachers with the potential to step-up – also provides an opportunity to improve retention and keep talented people in schools. It provides them with an additional incentive to stay in education, rather than seeking progression opportunities elsewhere. Providing teachers with a positive and supportive culture of learning and development could support with morale and retention. This is backed by Teach First's research, with the vast majority (88%) of teachers saying that their school offering excellent leadership development opportunities would have at least some impact on the likelihood of remaining at their school. More than a third (34%) of all teachers say it would have a 'great impact'. Importantly, this rises to 41% of those teachers considering leaving the profession within the next year.

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In a discussion paper entitled 'Why Teach?' published by Pearson and LKMCo in October 2015, the authors suggest that teachers are divided when it comes to the role ***leadership and management*** plays in keeping them in the profession. Almost half of respondents either increased or decreased the importance they accorded it in relation to reasons for entering compared to reasons for staying, but these teachers were almost equally split between those for whom it became more important and those for whom it became less important.

8.4 WHY TEACHERS QUIT #4: *PROFESSIONAL DEVELOPMENT*

The Learning Policy Institute paper, 'Teacher turnover: Why it matters and what we can do about it', by Carver-Thomas and Darling-Hammond (2017), found that teachers' ***preparation pathway (ITT route)*** influenced turnover.

Those who entered the profession through an alternative certification programme (what, in the UK, we might equate to non-HEI routes into teaching such as School Direct or SCITT) are, Carver-Thomas and Darling-Hammond say, 25% more likely to leave their schools than are full-time teachers who entered teaching through a regular certification programme, holding all else constant.

About 15% of all the teachers Carver-Thomas and Darling-Hammond surveyed in 2011–12 and about 1 in 4 first-year teachers they surveyed had entered teaching through an alternative pathway, which typically requires that a teacher work toward the requirements of a full credential while teaching and receiving little formal training beforehand. Alternative pathway teachers left their schools at rates about 28% greater than regular certification teachers when in high-minority schools.

These findings, argue Carver-Thomas and Darling-Hammond, are not surprising. Studies of the relationship between teacher preparation and teacher turnover suggest teachers with the least preparation are 2 to 3 times more likely to leave the profession than those with the most comprehensive preparation - including student teaching and courses in teaching methods. In their sample, consistent with the literature, teachers who were alternatively certified received less preservice preparation. Based on analysis of the data, alternative pathway teachers were less likely to have student taught before teaching, and those who did were less likely to have taught more than a few weeks. Traditional pathway teachers were more likely to report having taken 10 or more courses in teaching methods, and they were more likely to report feeling well prepared or very well prepared to handle a variety of teaching responsibilities in their first year, including classroom management, choosing instructional materials, and using assessment to inform instruction.

Quite often, Carver-Thomas and Darling-Hammond suggest, teachers choose alternative certification pathways because, without financial aid, they cannot afford to be without an income for the time it takes to undergo teacher training. Furthermore, candidates are less likely to be willing to go into debt for training if the financial rewards of the occupation are lower.

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In a paper entitled 'Disappearing Teachers: An Exploration of a Variety of Views as to the Causes of the Problems Affecting Teacher Recruitment and Retention in England' published in Education Policy, Reforms and School Leadership for the Bulgarian Comparative Education Society (BCES) in 2017, the author Gillian Hilton explains that the routes to becoming a teacher in England are now many and varied…

Hilton says the most popular route remains the Post Graduate Certificate of Education (PGCE), taken for one academic year after a subject degree, with an intense period of theory at the start of the training then practice in at least two different schools, increasing in amount as the year progresses. This route is for secondary, primary and early years teachers and is run in Higher Education Institutions (HEIs). The undergraduate route which qualifies students for a degree and qualified teacher status (QTS) (3 to 4 years in total) is also offered by HEIs and is popular with those training for primary and early years as it gives more subject input and a chance to specialize in maths, English or science and increases practice time in schools each year. Though the above are in many ways school based, the greatest number of trainees however, are now

trained in schools on school-based routes, via the one year School Direct routes (paid and unpaid) run by groups of schools, with a lead school or by a School Centred Initial Teacher Training organization (SCITT) or via a PGCE run by a SCITT, with support from an HEI or through the Teach First Route. This latter, a two year programme for graduates with good degrees from top-ranked universities, who undertake six weeks initial training then go straight into the classroom and qualify as teachers after two years. When qualified, the Teach First trainees can leave to follow another career or can expect rapid promotion to leadership.

In addition, Hilton explains, there are programmes for teachers of pre-school children (EYITT), for those who wish to work in secondary schools and further education colleges (QTLS), those wishing to teach English as a foreign language, for Doctoral students who wish to undertake teaching and researching in schools, for troops who wish to become teachers and a primary physical education specialist route, plus a pilot programme for special needs teachers.

The latest suggestion, Hilton says, is for those who are concerned about the high cost of a university programme to be given the chance to follow a graduate apprenticeship scheme for four years based in schools after the trainee completes Advanced Level examinations at the end of schooling. This route, she explains, would pay a small salary and combine degree level study and qualified teacher status whilst working in a school (Ward, 2016).

Hilton argues that, with all this choice, applicants might be confused about which programme to choose. However, she says the question must still be asked: Is this the only cause of the recruitment problem?

Salaries

Hilton argues that the curtailing of salary increases for teachers after the 2008 financial crash is affecting numbers of prospective trainees, as public sector salaries have been pegged at a 1% annual increase (Busby, 2016). Coupled with this is the introduction of performance related pay, which – she says - has resulted in some teachers receiving no salary rise at all. In the private sector incomes have been rising at a rate of about 2% making teaching far less attractive as a career than it was previously, as teaching is an occupation seen as stressful and low in status (Coughlan, 2013). Ward (2016) reports that students with good A Level grades are not considering teaching as a possible career, as other jobs are better paid and far less stressful.

Marketing

Despite the DfE's attempts to encourage more people into teaching, Hilton says that mistakes have been made, for example, misleading adverts on national television appearing to promise a starting salary of thirty thousand pounds for new teachers, when this incentive is only available to highly qualified physics graduates. It is possible, she says, that this much criticised advert has led to potential trainees perceiving the DfE's information as lacking credibility.

Targets for recruitment are not being met and constant changes by the DfE in controlling training places available, even during the middle of recruitment periods, has caused confusion and consternation to providers, who also complain about the amount of paperwork required. The NCTL's actions in the 2015/16 recruitment phase were described as creating a 'free for all' (Ward, 2015) as allocations to places were removed and a first past the post system installed mid-year. This resulted in all providers scrambling to interview and offer places as soon as possible, before the NCTL and DfE decided to prevent further recruitment. This resulted in some recruits being told that despite their being offered an interview; providers had been told to stop recruiting.

The cost of training

Hilton argues that, as a result of the DfE's widening of training routes, the costs of training a teacher are rising. The most expensive route (£70,000 per trainee) is Teach First which is intended to either quickly project trainees into positions of leadership but also allowing them, after their two years to leave teaching and follow another career. As a result, this programme has the highest drop-out rate of all the routes into teaching (Allen et al., 2014). Further to this is the problem of the attempt by the DfE to recruit teachers from overseas (Stewart, 2015) and also train returning troops to be teachers. These initiatives have also been costly, particularly as they have failed to bring in the projected numbers of new teachers. Richardson (2016) points to the expectations as opposed to the reality, as after two years the troops' scheme had only produced twenty eight new teachers and the drop-out rate from training has been very high. The scheme which offered a degree and qualified teacher status in two years has been condemned by unions as many of these recruits lack the required subject knowledge and success in the military does not mean that becoming a good teacher is assured. As for the overseas recruitment, staff arrive but having experienced English schools many either quickly return home, or convert to supply teaching where the demands are considered less. The causes for this failure to remain in the job appear to be the massive demands by government on teachers in England and the poor behaviour and attitude of many children (Busby, 2016).

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In a paper entitled 'The effects of school facility quality on teacher retention in urban school districts' by Jack Buckley of the Lynch School of Education, Boston College, Mark Schneider of the Department of Political Science, Stony Brook University, and Yi Shang of the Lynch School of Education, Boston College, published in February 2004, the authors posit that teacher retention is affected by the route a teacher takes into the profession.

Buckley, Schneider and Shang say there are debates about the effects of teacher preparation (i.e. routes into teaching) on recruitment and retention. Teachers who graduate from traditional university-based programmes, they say, have lower attrition rates than teachers with other, non- traditional forms of preparation (Harris, Camp, and Adkison 2003). A large percentage of new teachers also report that the teacher preparation programmes they went through did not provide enough help for them to cope with their first-year experience, which intensifies the need for proper mentoring, professional development, and administrative support in their working environment (Tapper 1995).

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The House of Commons Education Committee report, 'Recruitment and retention of teachers', (February 2017) says that teachers who feel supported and professionally confident often feel that their workload is more manageable. Peter Sellen told the Committee that "teachers in England receive very little professional development compared to those in other countries, which makes them feel less prepared, and that makes them struggle more with their working hours".

The Committee report also quoted Jack Worth from the NFER who, in verbal evidence, suggested "that schools [could] have a governor, or a trustee, or a senior member of staff who is responsible for […] the wellbeing of teachers and workload".

The Nottingham Education Improvement Board have produced a workload charter that schools can sign up to with the aim of capping teacher working hours. David Anstead, Strategic Lead for the Nottingham Education Improvement Board, described the aims of the charter to the Committee thus: "It is about capping the extra hours for classroom teachers to two hours beyond directed time a day, and three for leadership people.

The Committee argues that the government should recognise the importance of stability following major changes to accountability, assessment or the curriculum to allow recent reforms to be embedded. The current protocol of a

year's notice should be adhered to at the very minimum, the Committee says, but more effort should be made to give longer lead-in time for future policy changes.

The government must also do more, they say, to encourage schools to implement the recommendations of the workload challenge. Ofsted, meanwhile, must do more to dispel any misunderstandings of its requirements and promote good practice by monitoring workload in its school inspections. Ofsted should introduce and publish details of how consistency between inspectors is evaluated.

The Committee says that all school leaders should promote a culture of wellbeing in their schools, which will include taking greater account of teacher workload. his could include implementing the recommendations of the workload challenge or 'capping' the number of hours teachers work outside of teaching time.

Peter Sellen from EPI told the Committee that "60% of teachers agreed that one of the key barriers to accessing professional development was their work schedule" The pressure on teachers' time can mean professional development is squeezed out of timetables and not prioritised. ITT typically lasts for just one year and must cover a wide range of skills in this period. Continuing professional development (CPD) should follow on from this and act as ongoing training throughout teachers' careers, to improve their practice, develop new skills and maintain subject knowledge. However, the Committee argues that currently the teaching profession in England lacks clear, structured provision for CPD and a number of barriers act to reduce the amount of CPD done by teachers.

As well as struggling to find time for CPD, the current nature of the accountability system – the Committee argues - means senior leaders can be reluctant to release staff from the classroom. The Mathematical Association desccribed the situation to the Committee thus: "Secondary and FE level schools are regularly unwilling and unable to release staff to attend professional development. Losing class time with high stakes exam classes is not permitted and funding is not available to support attendance to training events. We have experience of even free high-quality training events being cancelled due to lack of delegates, not because teachers did not want to attend but because they were not allowed to by their schools."

The Committee heard that senior leaders often focus on pupil performance data and Ofsted inspection, at the expense of developing a culture of professional learning and development. David Anstead from the Nottingham Education Improvement Board told the Committee that "leadership in schools is driven by what they think the accountability system wants people to see, so there is specific training around that".

Analysis by the EPI of the Teaching and Learning International Survey 2013 showed that the number of days of CPD that English teachers carried out was fewer than most other OECD countries. On average, English teachers spent four days doing CPD in one year, whereas teachers in Singapore spent 12 days and South Korea 15 days. This is perhaps unsurprising, the Committee says, when you consider that teachers in Singapore are entitled to 100 hours of CPD per year, whereas England has no such entitlement. Singapore is not alone with this kind of commitment; somewhat closer to home, Scottish teachers are entitled to 35 hours of CPD per year.

The quality of CPD was also raised at Committee hearings as an essential factor to teacher professionalism. UCL Institute for Education told the Committee that "evidence suggests the best CPD is long-term, interspersed with episodes of practice, individually tailored and informed and challenged by external expertise".

Schools deliver a lot of their CPD in-house, which can be very effective, but, the Committee says, external expertise is also often beneficial. Professor Sir John Holman, President of the Royal Society of Chemistry, told the Committee "by and large, schools put a greater emphasis on generic things". Some 'generic' CPD, for example, behaviour management is very important, but Dr Bevan said: "Nearly all - and I am going to be a little mischievous in my description but I think it is fair - CPD currently being provided is driven by regulatory or statutory frameworks, so

that is curriculum change, Ofsted, Prevent training. Subject-specific CPD is necessary to develop specific skills related to the teaching of a subject, maintenance or acquisition of subject knowledge, and to improve practice.

The Committee says it welcomes the publication of the Standard for teachers' professional development, which should help schools improve the quality of CPD, but will not alter the fact that barriers still exist. In order for more teachers to carry out high-quality, subject-specific CPD, Universities Council for the Education of Teachers calls for stronger commitment from the government. It says: "Teachers should have an entitlement to, and expectation to use, structured early professional development […] that builds on and complements their initial training.

The benefits of improving CPD provision do not stop at improving teaching practice in schools. The Committee heard that a strong culture of relevant and high-quality CPD could improve teacher retention. One of the main reasons teachers intend to leave the profession, the Committee found, is a lack of job satisfaction, and not feeling supported in their profession. Charles Tracy from the Institute of Physics said: "If they provide a culture of professional development and professional support for their staff, the staff will stay in the school and it works for them as well as the national system where they will stay in education.

The Committee also heard that teachers who are less supported and professionally confident are more likely to find their workload unmanageable, a key factor of teachers leaving the profession. A professional learning culture and support for teachers may also help improve the status of the profession, something which was a recurring theme of the Committee's inquiry.

UCL Institute of Education told the Committee in written evidence that "ultimately, the status accorded to teaching is an important factor in attracting and retaining high calibre candidates". According to the OECD, 35% of teachers in England feel their profession is valued by society, compared with 66% in Korea and 60% in Finland, two high-performing countries. This is something the Committee found on a parliamentary visit to Finland and South Korea as part of their ongoing inquiry into the purpose and quality of education in England.

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According to CooperGibson Research's report, 'Factors affecting teacher retention: qualitative investigation', published in March 2018, teachers felt strongly that further ***subject specialist support for early career teachers*** was needed, particularly around mentoring, providing networks and resources and using a database to track teachers and offer additional support if they decide to leave. Concerns were around not duplicating what was already available, having the time to use elements of the support package, confidentiality and independence of mentors, and the availability of mentors at a suitable time prior to making a decision to leave. Some also suggested the support package would be useful for those slightly later in their careers.

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One form of professional development the literature suggests will positively impact on teacher retention is mentoring…

For example, a University of Pennsylvania paper entitled 'The Impact of Mentoring on Teacher Retention: What the Research Says', authored by Richard Ingersoll and Jeffrey M. Kralik and published in February 2004, says that in recent years there has been a growth in support, guidance and orientation programmes – collectively known as induction – for beginning elementary and secondary teachers during the transition into their first teaching jobs generally intended to increase the confidence and effectiveness of new teachers, and thus to stem the high levels of attrition among beginning teachers, which estimates place as high as 40-50% within the first five years.

The report's primary objective was to provide policymakers, educators and researchers with a reliable assessment of what is known, and not known, about the effectiveness – the value added – of teacher induction programmes. In particular, the review focused on the impact of induction and mentoring programmes on teacher retention.

While Ingersoll and Kralik found the impact of induction and mentoring differed significantly among the 10 studies reviewed, collectively the studies did provide empirical support for the claim that assistance for new teachers and, in particular, mentoring programmes have a positive impact on teachers and their retention.

Although the studies point to the likely value of some induction and mentoring programmes in decreasing the attrition of new teachers, Ingersoll and Kralik conclude that there are a number of pressing questions concerning mentoring and induction that require more controlled and systematic research than currently exists in order to be answered with confidence, including:

1. What kinds of teachers are helped most by induction and mentoring programmes?
2. Which elements, supports and kinds of assistance make induction and mentoring programmes most helpful in addressing the various weaknesses among new teachers with differing backgrounds? 3. Which aspects of induction and mentoring programmes contribute most to the increased retention of new teachers? Do these differ from the factors that contribute most to teachers' enhanced classroom effectiveness?
4. Do the selection, preparation, training, assignment and compensation of mentors make a difference?
5. Is it possible to document links between teacher participation in mentoring and gains in student outcomes?

8.5 WHY TEACHERS QUIT #5: *PROFESSIONAL RECOGNITION & CAREER PROGRESSION*

The CooperGibson Research report for the Department for Education (March 2018), says there is evidence that the availability of wider progression opportunities may help support retention. This could be supported by communicating examples of how multi-academy trusts (MATs) have developed alternative subject progression pathways, exploring transferability to other schools and supporting schools to consider job role swaps.

Although teachers surveyed by CooperGibson were unclear on how this could be achieved for the profession as a whole, it was evident that teachers feeling more respected and valued would have gone some way to retaining them in the sector. Their suggestions related to how senior leaders trusted their work and gave them freedom and autonomy to mark and plan.

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In a discussion paper entitled 'Why Teach?' published by Pearson and LKMCo in October 2015, the authors argue that teachers who stay in the profession do so largely because they consider themselves to be good at it and because they enjoy making a difference to pupils' lives. Career progression, social impact and school-focused factors like culture and ethos are particularly important to school leaders.

Retention, Pearson/LKMCo argue, depends on ensuring teachers feel they can have an impact: letting them 'get on with it' is therefore key in maintaining a motivated and committed workforce.

As they go on to have families and lay down roots, teachers need to feel that they can make a good living and benefit from good working conditions. Relative pay compared to other professions therefore needs to be kept competitive and excess workload needs urgent tackling.

Career development and career progression opportunities should be made readily available in order to maintain commitment and motivation, particularly amongst younger teachers.

The Pearson/LKMCo paper draws heavily on research carried out by NFER in 2000 which outlined four reasons teachers remain in the profession:

1. Recognition of their work;
2. Pupil development and learning;
3. Manager approval;
4. Family and friends.

Nias (1989) observed that it was crucial to primary school teachers that their post was 'socially satisfying' in terms of their relationships with students and colleagues. Meanwhile, for headteachers, motivations to stay in teaching include the prospects of future rewards, the enhancement of school resourcing and the provision of support and advisory services (NFER, 2000).

Priyadharshini and Robinson-Pant (2003) find that the collision between reality and initial aspirations may be the greatest reason for teacher attrition. Thus, whilst attempts to improve retention by tackling these factors through improved task return (enhanced pay) and decreasing task demand (reducing administrative burden and workload) may improve retention to some extent, they do not necessarily improve job satisfaction since the latter depends on providing greater intellectual challenge, autonomy and the opportunity to spend sufficient time with students.

Pearson/LKMCo's survey finds that professional satisfaction related factors play the greatest role in keeping teachers in the profession but their report also argues that overlooking the importance of workload would be a grave mistake. Pearson/LKMCo's comparison of reasons for entering and staying in the profession also suggests that material and practical motivations should not be overlooked.

Both the literature and Pearson/LKMCo's findings show that teachers tend to stay in schools and in teaching when they are confident that they can help students succeed. This depends ***on supportive school management*** and colleagues, as well as on having ***sufficient resources*** (Birkeland and Johnson, 2003). Teachers also tend to stay where they can pursue ***professional growth and development***, something particularly important to new or early-career teachers. A deeply-rooted culture of professionalism can therefore ensure that even socio-economically disadvantaged schools retain teachers through "supportive administrators and colleagues, clear expectations for students and safe, orderly environments" (Birkeland and Johnson, 2003, p. 603).

According to the Pearson/LKMCo survey, compared to respondents who are classroom teachers, those in middle leadership positions are significantly more likely to describe opportunities for ***career progression*** and subject interest as playing a 'very important' role in their decision to stay. Meanwhile for Head Teachers and Senior leaders themselves the four factors that were rated very important for staying in teaching were:

1. Opportunity to make a difference in pupil's lives (62%)
2. Being good at it 53%
3. Desire to work with children and young people (53%)
4. Being well qualified to do it (52%)

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Related to the subject of professional recognition is the standing of one's subject specialism…

A paper entitled 'Teacher Retention by Subject' (Worth and De Lazzari) published in May 2017 as part of the NEFR Teacher Retention and Turnover Research project, argues that the rates of teachers leaving the profession are highest in the first few years after qualifying to teach, for teachers of all secondary subjects and for primary school teachers. This has consistently been the case for at least 15 years. Switching career is easiest when an individual has invested relatively little in a particular career path. However, leaving rates are particularly high for early-career teachers in shortage subjects.

The leaving rates of maths, science and languages teachers are above average in their first five years in the profession, while mid-career teachers are more similar to the average. This means more trainees or returning teachers are needed to maintain a particular level of supply.

The leaving rate for early-career teachers of technology subjects (a non- EBacc subject) is below average, argues the NFER; whereas the rate for those with more than five years' experience is above average. This suggests that the profile of technology teachers is shifting towards early-career teachers and away from more experienced teachers. This could be driven by schools reducing spending (experienced teachers are more expensive to employ) or demanding teachers with more up-to-date subject knowledge.

The leaving rate for secondary school teachers who qualified more than twenty years ago, a proxy for experience, is slightly higher than mid-career teachers, according to the NFER research. This is evidence of experienced teachers leaving before normal-age retirement, as NFER analysis only includes working-age teachers. Overall, the proportion of classroom secondary teachers in the workforce aged 50 or over has fallen from 21.6 per cent in 2010 to 16.4 per cent in 2015.

The NFER argues that both the accountability system and teacher supply are influencing curriculum change…

A number of different forces have influenced secondary schools' curriculum over the last five years. New accountability measures introduced by the government – EBacc and Progress 8 – have provided schools with an incentive to particularly prioritise teaching of EBacc subjects. School spending per pupil has been stable in real terms, so increases in a particular subject area may have often meant reductions in other subjects (Belfield et al, 2017). Teacher supply in particular subjects has also acted as a constraint on the ability to expand teaching in some subjects.

Disentangling the effect of each of these factors is a challenge, say the NFER, but some inference is possible. Science is a statutory subject up to age 16, but Progress 8 provides an additional incentive for schools to offer more science teaching to fill EBacc slots. However, total curriculum hours have been unchanged since 2011. This could be because schools had spare capacity (smaller classes) which they have used up. It may also be that low recruitment and retention rates have limited schools' ability to expand science teaching hours. History/geography and languages are EBacc subjects, but Progress 8 incentivises schools to fill EBacc slots for one of these subject groups more strongly than it incentives them to fill both. History and geography curriculum hours have risen by 17 per cent since 2011, while languages hours have fallen slightly. This suggests that lower recruitment and retention rates in language subjects have constrained schools' ability to offer more language teaching in response to an incentive to do so. This also constrains the government's ability to achieve its aim for 90 per cent of pupils to be entered for the EBacc.

NFER research shows that non-EBacc subjects have all seen reductions in teaching hours since 2011. Progress 8 gives schools very little incentive to expand teaching of these subjects. Technology subjects have seen the largest falls in curriculum time, compared to arts subjects and PE. High leaving rates among experienced technology teachers suggests that budget pressures may have played a part in this trend as well.

8.6 WHY TEACHERS QUIT #6: *AUTONOMY AND COLLEGIATE SPIRIT*

In a NFER paper entitled 'Engaging Teachers' by Sarah Lynch, Jack Worth, Susan Bamford, and Karen Wespieser published in September 2016, the authors claim that the more engaged teachers are, the less likely they are to consider leaving. Their research, based on responses to their Teacher Voice surveys in November 2015 and March 2016, suggests that a majority (90 per cent) of teachers who report being 'engaged' are not considering leaving, compared with only a quarter of 'disengaged' teachers. But not all teachers in the survey fitted this pattern. Ten per cent of engaged teachers are considering leaving, and five per cent had also identified an alternative destination, so seem more certain about their decision.

There were many teachers in the NFER survey who appeared to be engaged with their role but the perceived pressure had 'taken its toll'. As one primary teacher clarified, 'It's not a decision against teaching, it's a decision against working in this context.... the workload, the impact on my life...'.

Losing engaged teachers could be a serious problem for the sector, says the NFER paper, particularly given research evidence of the relationship between engagement factors (including job satisfaction, school culture and a supportive context), teacher quality and student outcomes (see, for example, Fleche 2016 and Johnson, Kraft and Papay, 2011).

The NFER suggests that effort be targeted at keeping the engaged teachers feeling valued and satisfied in their roles. Re-engaging ambivalent teachers could also help teacher retention A third of ambivalent teachers in the survey are considering leaving, and as a third of teachers overall made up this group, that is approximately ten per cent of teachers who could potentially be retained if re-engaged. A quarter of disengaged teachers in the survey have no intention of leaving. It is perhaps not surprising that three-quarters of the disengaged teachers are considering leaving. Given the research evidence of the relationship between engagement factors and teacher quality, it may not be a negative consequence for the teaching profession if disengaged teachers leave. However, there could be opportunities within the sector to re-engage this group.

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In a paper entitled 'The effects of school facility quality on teacher retention in urban school districts' by Jack Buckley of the Lynch School of Education, Boston College, Mark Schneider of the Department of Political Science, Stony Brook University, and Yi Shang of the Lynch School of Education, Boston College, published in February 2004, the authors argue that experienced teachers are more concerned with the discretion and **autonomy** they have in their schools.

Other important predictors of teachers' commitment, according to Buckley, Schneider and Shang, include: **performance efficacy,** i.e. a teacher's perception of how his or her teaching, in the particular school context, will affect students' learning; psychic rewards, i.e. a variable which, like performance efficacy, is generated both from a teacher's own qualification and from school's organisational quality that allows **free flow of supportive/constructive feedback; and learning opportunities**, i.e. mentoring for new teachers and other plans for professional development.

9. CONCLUSIONS

Taken together, the papers reviewed for this report indicate that, if the teacher retention crisis is to be resolved, then governments and schools must address the concerns that teachers have expressed pertaining to the following aspects of teaching:

1. Workload
2. Working conditions
3. Leadership
4. Professional development
5. Professional recognition and career progression
6. Autonomy and collegiate spirit

Of course, in addition to these *professional* considerations, we cannot ignore the more *personal* factors that may determine a teacher's decision to leave the profession such as their age and health, and other personal circumstances. For example, as the interim report of the NFER's Teacher Retention and Turnover Research project published in October 2017 concluded, retention is affected by the following teacher-related factors:

Age and experience

Individual characteristics are important predictors of whether a teacher will leave the profession or move school and, of all the individual characteristics, age and experience are strongest.

The NFER found that:
• Between 2010 and 2015, there was a large reduction in the proportion of teachers who are aged between 51 and 59. NFER research found that this decrease was due to a combination of both a larger than average cohort and a higher rate of older teachers leaving over the period.
• The leaving rate in the number of teachers older than 50 was disproportionately driven by reductions in teachers of non-EBacc subjects in this age band. This may be because schools are incentivising older teachers of these subjects to retire early, or teachers may be frustrated at their subject receiving less priority.
• Age is more important for predicting the chance of leaving the profession for older teachers whereas the number of years of experience appears to drive the high leaving rate among younger teachers.
• The level of experience seems to be more important than age for explaining churn for all but the oldest teachers. Churn rates for inexperienced teachers are particularly high, which could be driven by a desire to seek better working conditions, or to gain more experience in a different school setting, whereas older teachers may have more family / other ties which make it more difficult to move.

Subject taught
In addition to age and experience, a teacher's subject specialism is also a useful predictor of possible churn. The NFER found that the proportion of teachers leaving the profession and moving school increased for all subject groups between 2010 and 2015, but by different amounts.

After accounting for individual, school and geographical characteristics, the NFER found that:
• MFL and science teachers were the most likely to leave the profession while humanities teachers were the least likely to leave. The number of teacher trainees for both MFL and science have been below the government's target for four years, which may have constrained schools' ability to offer more teaching in these subjects.
• Teachers of non-EBacc subjects were the least likely to move school, while English, maths and science teachers were the most likely to move school. The limited mobility of non-EBacc teachers may be due to there being fewer available opportunities due to schools' reducing curriculum time dedicated to these subjects.

Part-time employment

There is a considerably higher proportion of part-time teachers in the primary sector compared to secondary schools. This gap persists when comparing teachers by age, gender and the number and age of children, which suggests that primary schools seem to be better able to accommodate part-time employment than secondary schools.

After controlling for other individual, school and geographical characteristics, the NFER found:

- Part-time teachers were more likely to leave the profession compared to their full-time colleagues, both in the primary and secondary sector. This was particularly the case for males, which perhaps indicates that specific circumstances may be pushing them into part-time employment and out of the teaching profession.
- Differences in the probability of moving school between part-time and full-time teachers were much smaller than the differences in the probability of leaving the profession after accounting for other characteristics.

Academy status

NFER analysis found that:

- Teachers in sponsored academies had a much higher probability of leaving the profession and moving school, but after accounting for individual and other school characteristics, the gap narrowed considerably.
- MATs had a slightly higher rate of teachers leaving the profession compared to single-academy trusts and maintained schools, after accounting for the fact that MATs were disproportionately comprised of sponsored academies. This may be due to different staff management practices in MATs, but could also be due to the way that staff movements from a school to a MAT central team are recorded. In addition, MATs also had higher than average rates of teachers moving school, although when the NFER excluded staff movements within MATs, this difference mostly disappeared. There appears to be little evidence to date – the NFER says - that MATs are better able to retain their teachers by giving them opportunities to move within their organisation, as previously proposed by the government.

In addition to the above personal considerations, the NFER's Teacher Retention and Turnover Research project also concluded that teacher retention was affected by a school's ***Ofsted rating…***

In particular, the NFER analysis showed that:

- The lower the Ofsted rating, the higher the proportion of teachers both leaving the profession and moving school, particularly for schools rated as being Inadequate by Ofsted. Taken together, the NFER says, this means that inadequate schools have much higher rates of staff turnover than other schools.
- Within the Inadequate category, schools with this rating in two consecutive periods were particularly associated with high rates of teachers moving school. Conversely, schools which were upgraded from Inadequate to RI were also associated with higher staff turnover than other RI schools.

The NFER proffered the following recommendations:

- The government should investigate why the rate of leaving among older teachers has been increasing and explore whether they could be incentivised to stay in the profession longer, particularly in subjects with specialist teacher shortages.
- The government should give greater attention to the impact of teachers moving around the profession and develop policies to support schools which are disproportionately affected.
- Bursary payments, or other financial incentives such as student loan repayments, should be structured to explicitly incentivise retention in the teaching profession during the first few years after training.
- The government and stakeholders in the secondary sector need to look urgently at identifying ways that accommodate more and better part-time working in secondary schools.

• Further research with secondary schools which successfully offer greater flexibility in working patterns should be undertaken and best practice shared.
• To help improve retention, leaders of MATs should do more to promote the benefits of working in their organisation to their teachers; for example, by raising the profile of the MAT as the structure that teachers belong to, and through promoting career paths for teachers to develop and progress within the MAT.
• Policy makers should look at how policy interventions, such as housing subsidies, could help to retain teachers in high-cost areas.
• Further research exploring the geographical flows of trainees into the teacher workforce / during their careers would help to gain an understanding of the detailed dynamic picture within and across different areas and aid the development of policy solutions.

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The House of Commons Education Committee report oft cited above, offers the following conclusions and recommendations, which I have taken the liberty of paraphrasing:

1. Schools face increasing challenges of teacher shortages, particularly within certain subjects and regions. The government is aware of these issues, yet lacks a coherent, long-term plan to effectively address them. The government has missed recruitment targets for the last five years, and in 2016/17 the number of graduates starting initial teacher training fell.

2. Rising pupil numbers and changes to school accountability, including the government's focus on subjects within the EBacc, will exacerbate existing problems, increasing demand for teachers in subjects experiencing shortages. The failure of the National Teaching Service leaves a gap in the government's plans to tackle regional shortages.

3. The number of different routes into teaching are not always well understood by applicants and can be confusing. The absence of a central application system for school-led ITT leads to inefficient application systems and does little to address regional shortages.

4. The government and National College for Teaching and Leadership (NCTL) should develop a long-term plan to improve both the supply of new and retention of existing teachers over the next 10 years.

5. The Department for Education should assess the full consequences of the range of possible numbers of teachers needed in the system as predicted by the Teacher Supply Model and include pre-existing shortages in this. The government should follow through on its plan to develop and launch a national vacancy website (this was piloted in June 2018) which will be free to use for schools, and use the data to inform teacher recruitment targets. The Department should publish teacher shortages on a regional basis to better inform teacher recruitment.

6. Government intervention currently focuses almost entirely on improving recruitment of teachers. The government struggles to recruit enough teachers to ITT each year, making the retention of teachers ever more important. Introducing initiatives to help improve teachers' job satisfaction may well be a much more cost-effective way of improving teacher supply in the long term.

7. The government does not collect enough data on retention rates by subject, region, or route into teaching. Research suggests more teachers are leaving the profession and that there may be specific issues for certain subjects, particularly science teachers.

8. The government should focus more resource on evidence-based policies to improve the retention of high-quality teachers. he Government should collect more granular data on teacher retention rates. his should include the

reasons driving teachers to leave including secondary school subject, region and route into teaching to inform where intervention and investment should be directed.

9. School leaders should carry out systematic exit interviews and use this information to better understand staff turnover, and whether there are any interventions that may help retain high-quality staff.

10. The government should recognise the importance of stability following major changes to accountability, assessment or the curriculum to allow recent reforms to be embedded. he current protocol of a year's notice should be adhered to at the very minimum, but more effort should be made to give longer lead in time for future policy changes.

11. The government must do more to encourage schools to implement the recommendations of the workload challenge. Ofsted must do more to dispel any misunderstandings of its requirements and promote good practice by monitoring workload in its school inspections. Ofsted should introduce and publish details of how consistency between inspectors is evaluated.

12. All school leaders should promote a culture of wellbeing in their schools, which will include taking greater account of teacher workload. his could include implementing the recommendations of the workload challenge or 'capping' the number of hours teachers work outside of teaching time.

13. CPD improves teaching practice, professionalism, and can help improve teacher retention. Until now, England has had a weaker commitment to CPD for teachers than many high-performing countries.

14 . All teachers should have the entitlement and opportunity to undertake high-quality, continuing professional development. his should include greater emphasis on: Subject-specific knowledge and the ability to deliver it effectively through up-to-date pedagogical research; longer term and cumulative development, which will include continuing evaluation and opportunities for review; training being relevant to the different stages of a teaching career, recognising that the needs of a recently qualified teacher may differ from someone in the middle of their career.

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In summarising their findings, meanwhile, Carver-Thomas and Darling-Hammond argued that, for most teachers, the decision to leave is associated with dissatisfactions with teaching.

Among the most prominent reasons for dissatisfaction in recent years, they say, are pressures associated with test-based accountability, unhappiness with administrative support, and dissatisfaction with teaching as a career. Teachers also report that they leave for both financial and personal reasons.

In response to these findings, Carver-Thomas and Darling-Hammond asserted that retaining teachers requires a comprehensive approach that ensures teachers are well prepared for the challenges of teaching, compensates them adequately for their labour, and provides the teaching and learning environments that support their growth and help them to be effective. With high turnover rates across the board, policymakers should pursue strategies that can advance these goals in all schools, but especially in those where turnover rates are most extreme.

Carver-Thomas and Darling-Hammond highlight the following policy considerations that address the findings of their report:

Compensation: As in countries with well-developed teaching systems, US states and districts should work to provide compensation packages that are competitive with those of other occupations requiring similar levels of

education and that are equitable across districts, so all schools can compete in the labour market for well-prepared teachers.

Teacher Preparation and Support: In addition to service scholarships and loan forgiveness programmes that allow teachers to complete a strong preservice teacher preparation programme without incurring substantial student debt, other high-retention pathways into teaching can provide new teachers with the skills they need to be successful in and available to the high-need communities where they are most needed.

In US teacher residency programmes, based on the medical residency model, residents train in high-needs schools for an entire school year under the guidance and supervision of a master teacher, while earning a credential and a master's degree from a partnering university. Most programmes offer tuition assistance and a stipend for living expenses, plus two years of mentoring after the training year. In exchange, residents commit to teaching in the district for 3 to 5 years after their residency year. This has the triple benefit of filtering out candidates not willing to make a serious commitment to teach, ensuring that they are well prepared for the particular context in which they will teach, and continue to teach in high-needs schools as their effectiveness increases.

'Grow your own teacher' preparation models, meanwhile, create a pool of potential teachers by recruiting high school students, paraprofessionals, after-school programme staff, or other local community members into teaching. These models capitalise on the fact that teachers are more likely to stay and continue teaching in their own communities. Grow your own models often provide incentives to participants to pursue teacher training through the kind of high-quality preparation programmes associated with improved teacher retention.

High-retention pathways into teaching can provide new teachers with the skills they need to be successful in and available to the high-need communities where they are most needed.

Districts should also provide high-quality mentoring and induction to beginning teachers, and in particular, should consider how these supports can meet the needs of a diverse workforce. Induction programmes that include being assigned a mentor, meeting frequently, and focusing on high- leverage activities - observation and feedback; analysing student strengths and needs; discussing instructional issues; and developing a professional growth plan - have been found to result in improved teacher retention.

School Leadership: Effective leadership is at the heart of every school and drives high-quality support for new teachers and improved teaching conditions. To develop strong school leaders, policymakers can develop rigorous training program accreditation and principal licensure standards aligned with research on effective school leadership, as well as systems for regular programme review by qualified experts. Districts can consider strategies for ensuring headteachers/principals enter leadership positions with the skills needed to nurture positive school environments, such as partnering with local administrative credential programmes to determine and support competencies participants need to develop; nominating and subsidising teachers who show instructional leadership skills to pursue administrative credentials; nominating and training mentor heads/principals to provide high-quality clinical training experiences; creating head/principal pipeline programmes that focus on the skills administrators need to be effective as both assistant principals and principals; and assigning highly qualified and experienced administrators to the schools in need of the greatest support.

10. DOES TEACHER TURNOVER MATTER?

So far in this report, we have considered the scale of the problem and explored many of the reasons why teacher quit. Latterly, we have also considered some possible solutions. What we have not yet considered in any detail, however, is the impact of high teacher turnover on students….

In a paper entitled 'How Teacher Turnover Harms Student Achievement' by Ronfeldt, Loeb and Wyckoff published in 2012 in the American Educational Research Journal for Stanford University's Center for Education Policy Analysis, the authors argue that researchers and policymakers often assume that teacher turnover is a problem for schools, particularly for schools with a high population of disadvantaged students. However, they argue, turnover could – theoretically - be either problematic or beneficial for students because turnover changes the composition of the teachers at the school and depending on whether the new teachers are higher or lower quality than the teachers who left, the overall 'compositional' effect of turnover on student learning could be either positive or negative.

Turnover may also have broader implications for schools, Ronfeldt et al argue. For example, it could have a 'disruptive' effect on staff cohesion and community, which would affect all teachers, including those retained from year-to-year, and their students. This disruptive effect could be positive if the new teachers brought new and productive ideas or it could be negative if important institutional knowledge was lost. Given the theoretical uncertainty surrounding turnover, Ronfeldt et al empirically investigated the effects of turnover on student achievement and began to explore possible mechanisms by which turnover might affect students. Their study draws on extensive administrative data from New York City. Their analyses focus on approximately 850,000 observations of 4th and 5th grade students over eight academic years. The data includes student test scores in maths and reading, as well as class, school, and teacher characteristics.

First, Ronfedlt et al investigated the effects of differences in turnover rates between years in the same school-grade. Next, they examined the effects of differences in turnover rates between grades in the same school-year. These approaches minimised the possibility that their results were driven by influences other than turnover. For instance, by comparing school-grades within the same year, the researchers eliminated the possibility that their results were actually picking up the effect of a new principal who affected both turnover and achievement, because this principal would affect all grades at once.

Ronfeldt et al found that teacher turnover has a negative effect on student achievement beyond what can be explained by experience and teacher migration. They found that there was a significant amount of turnover in New York City. Each year, school-grades experience an average of 11-13 percent turnover and around one percent of 4th and 5th grade level teams experience 100 percent turnover each year. This turnover, on average, appears to be bad for students. the results consistently indicate that student achievement is lower when turnover is higher, particularly in maths. For example, the results imply that in a given grade level with five teachers, reducing teacher attrition from two teachers to none leaving would increase student maths achievement by two to four percent of a standard deviation. This effect is similar in magnitude to the difference in learning between low-income students (those eligible for free school meals) and other students.

Furthermore, turnover appears to be particularly problematic at schools with large populations of disadvantaged students. Ronfeldt et al were unable to examine exactly how turnover affects students so they ran additional analyses to get a sense of the whether the effects are compositional or disruptive in nature. One way new teachers may differ from the teachers they are replacing, Ronfeldt et al say, is in terms of experience. When they controlled for teacher experience in their models, the effects of turnover shrunk but remained substantial, suggesting that changes in the distribution of teacher experience (i.e. novice teachers replacing tenured teachers) explains some, but not all, of the effects of turnover on student achievement.

It is also possible, the report's authors posit, that teachers who transfer across schools, regardless of experience, are generally less effective in their first year at the new school. Again, while this does appear to play some role, turnover has a negative effect on student achievement beyond what can be explained by experience and teacher migration.

When teachers leave schools at high rates student learning drops. The researchers found that differences in teachers' effectiveness as a result of turnover can explain some, but not all, of the effects of turnover on student achievement. This partial explanation is true for both the entire population of schools and lower-achieving schools in particular. While it appears that under-served schools do to tend to fill vacancies with relatively less effective teachers, this is not the entire story. To examine this further, Ronfeldt et al investigated the effects of turnover on the students of teachers who remain in the same school-grade from year-to-year and are not actually a part of the turnover. They consistently found that students of 'stayers' perform worse when turnover is greater, particularly in lower-performing schools. This result bolsters their previous findings and points to teacher turnover having a wider disruptive effect on the school which is harmful to student achievement.

In conclusion, although teacher turnover may be beneficial in some cases, Ronfeldt et al found that, on average, turnover is detrimental to student learning.

11. PRODUCT REVIEW

A search of the products and services that are available to schools to help them analyse and improve teacher retention garnered very few positive results.

Iris Connect is the first sponsored result in a Google search using the terms 'tools to improve teacher retention' and their offer includes a free downloadable guide (in exchange for providing personal details to be used for marketing purposes). Their guide sets out three practical things schools can do to improve retention which are in line with the findings above:

1. More focused leadership
2. Career-long professional development, and
3. Professional self-efficacy

The guide is a means of marketing the Iris Connect video professional learning platform which includes tools to improve lesson observations, self-reflection, coaching and teacher collaboration.

Learning Cultures is the second sponsored result in a Google search using the above parameters although their offer relates to CPD for teachers and leaders including coaching and INSET.

The third sponsored result is for SSAT's Teaching and Learning Improvement Programme (TLIP).

The majority of the remaining, non-sponsored, results on page one to three of a Google search offer articles and blogs containing advice on increasing retention rates and reducing teacher turnover.

The Education Endowment Foundation is currently investing in a fund to test different ways to improve science teacher retention. The research, funded by the Wellcome Trust, will test strategies like flexi-working, mentoring, reducing workload, high quality subject-specific CPD and initiatives to support teacher mental health and wellbeing as a means of improving the retention of physics, chemistry and biology teachers in secondary schools.

SIMS offers a service via its SIMS Staff Performance tool that purports to help senior leaders effectively manage, monitor and report on the performance of their teachers whilst integration with SIMS Personnel and SIMS Core Suite, the company argues, allows leaders to quickly record staff performance alongside training and employment details, and to measure performance against professional standards. They suggest that this is a means of motivating and retaining quality staff.

The Teacher Development Trust offers a subscription to a network providing the latest intelligence on CPD, free access to research, networking opportunities with other schools, specific tools and guidance around CPD and Lesson Study, bespoke advice around CPD programmes, and a web-based self-audit to evaluate the school's culture and processes.

Most of the products on the market focus on how professional development and leadership can help improve teacher retention and thus focus their services on providing CPD for teachers and leadership development for middle and senior leaders.

12. SUGGESTED NEXT STEPS

In light of this literature review and the survey of products and services currently on the market, it is recommended that, as a next step, MAG convene a working party of current school leaders from both primary and secondary phases – chaired by an independent education expert - in order to debate the issues further with a view to developing a support service for schools.

If it is to be of real value, any such support service must look beyond a superficial analysis of attrition data (although a survey of each school's unique circumstances would certainly be a useful starting point and exit interviews conducted by an external consultant are likely to provide more honest feedback).

Rather, such a service should provide a 'deep-dive' of a school's working environment by surveying and interviewing staff (teachers, leaders, support and other adults), students, parents, governors and other stakeholders, but then use the data it gathers to produce a detailed action plan, perhaps offered with accompanying tools to help the school leadership team address the suggested actions contained in the plan.

This 'deep dive' and action plan is likely to include the following, although this is by no means an exhaustive list:

1. Suggestions for improving school-based CPD including coaching and mentoring, and collaborative INSET such as Lesson Study and Professional Learning Communities (PLCs)
2. Suggestions for improving the quality and capability of the school's leadership team, particularly in the realm of performance management and quality assurance (this may be a leadership development programme for all new leaders and coaching for experienced leaders)
3. Suggestions for improving the school's marking and feedback policy, and other TLA policies that result in a significant teacher workload (this may involve an external analysis of existing policies and suggestions for improvements based on research evidence)
4. Suggestions for improving teachers' timetables and teaching loads, with a view to reducing teachers' planning and preparation duties
5. Suggestions for improving the school's behaviour policy to ensure staff are fully supported and rewards and sanctions are not overly bureaucratic
6. Suggestions for improving the staff ethos, encouraging greater levels of collective autonomy and collegiality
7. Suggestions for improving the staffing structure and pay structure to ensure greater fairness and equity

In short, any such service should help leaders to answer the following questions:

1. How can we improve workload for teachers?
2. How can we improve working conditions for teachers?
3. How can we strengthen – and make more visible - the support we offer all staff for behaviour management and other aspects of school life?
4. How can we improve the frequency, quality and relevancy of professional development opportunities and ensure it leads to improvements in the quality of teaching, learning and assessment?
5. How can we provide greater autonomy for teachers whilst building a collegiate spirit among staff?
6. If we run a school-based initial teacher training programme and/or 'grow our own teachers', how can we ensure that programme better prepares colleagues for the classroom?
7. How can we improve the physical environment – including light and heat – and the quality of the learning resources available to teachers and pupils?

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